



Australian Government

AHC Agriculture, Horticulture and Conservation and Land Management Training Package

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AHC Agriculture, Horticulture and Conservation and Land Management Training Package

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AHC10116 Certificate I in Conservation and Land Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification is an entry-level qualification aimed at individuals entering conservation and land management industry. It allows individuals to develop basic skills and knowledge to prepare for work. They may undertake a range of simple tasks under close supervision. The range of technical skills and knowledge is limited.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 6

- Core Units = 2
- Elective Units = 4

Core Units

Work health and safety

Unit Code	Unit Title
AHCWHS101	Work safely

Work

Unit Code	Unit Title
AHCWRK101	Maintain the workplace

Elective Units

Select 4 units from the elective list or from the elective lists of Certificates I or II of this or any other endorsed Training Package or Accredited Course.

Selected units must be relevant to job outcomes in conservation and land management and must be chosen to ensure the integrity of the qualification outcome at AQF level 1.

Chemicals

Unit Code	Unit Title
AHCCHM101	Follow basic chemical safety rules

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM101	Assist with routine maintenance of machinery and equipment

Natural area restoration

Unit Code	Unit Title
AHCNAR101	Support natural area conservation
AHCNAR102	Support native seed collection

Nursery

Unit Code	Unit Title
AHCNSY101	Support nursery work

Work

Unit Code	Unit Title
AHCWRK204	Work effectively in the industry

Qualification Mapping Information

This qualification is equivalent to AHC10110 Certificate I in Conservation and Land Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC10216 Certificate I in AgriFood Operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification is an entry-level qualification aimed at individuals entering the agriculture, horticulture and conservation and land management industries. It allows individuals to develop basic skills and knowledge to prepare for work. They may undertake a range of simple tasks under close supervision. The range of technical skills and knowledge is limited.

The qualification is suited to VET in Schools programs or learners with no previous connection to the agriculture, horticulture or conservation and land management industries or relevant employment history.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 6

- Core Units = 2
- Elective Units = 4

Core Units

Work

Unit Code	Unit Title
AHCWRK101	Maintain the workplace

Work health and safety

Unit Code	Unit Title
AHCWHS101	Work safely

Elective Units

- Select at least 2 units from the elective list
- 2 units may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course. The 2 units selected can be at AQF level 1 or AQF level 2. Selected units must be relevant to job outcomes in AgriFood industries and must be chosen to ensure the integrity of the qualification outcome at AQF level 1

Broadacre cropping

Unit Code	Unit Title
AHCBAC101	Support agricultural crop work

Chemicals

Unit Code	Unit Title
AHCCHM101	Follow basic chemical safety rules

Irrigation

Unit Code	Unit Title
AHCIRG101	Support irrigation work

Landscape

Unit Code	Unit Title
AHCLSC101	Support landscape work

Livestock

Unit Code	Unit Title
AHCLSK101	Support extensive livestock work
AHCLSK102	Support intensive livestock work

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM101	Assist with routine maintenance of machinery and equipment

Nursery

Unit Code	Unit Title
AHCNSY101	Support nursery work

Organic production

Unit Code	Unit Title
AHCORG101	Support organic production

Parks and gardens

Unit Code	Unit Title
AHCPGD101	Support gardening work

Production horticulture

Unit Code	Unit Title
AHCPHT101	Support horticultural production

Tools and equipment

Unit Code	Unit Title
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MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations

Turf

Unit Code	Unit Title
AHCTRF101	Support turf work

Wool

Unit Code	Unit Title
AHCWOL101	Support woolshed activities

Qualification Mapping Information

This qualification is not equivalent to AHC10210 Certificate I in Agrifood Operations.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC10316 Certificate I in Horticulture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification is an entry-level qualification aimed at individuals entering the horticulture industry. It allows individuals to develop basic skills and knowledge to prepare for work. They may undertake a range of simple tasks under close supervision. The range of technical skills and knowledge is limited.

The qualification is suited to VET in Schools programs or learners with no previous connection to the horticulture industry or relevant employment history.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 6

- Core Units = 1
- Elective Units = 5

Core Units

Unit Code	Unit Title
AHCWHS101	AHCWHS101 Work safely

Elective Units

- Select 3 units from list below
- 2 units may be selected from units aligned to Certificates I or II in the AHC Training Package or from any other currently endorsed training package or accredited course
Selected units must be relevant to job outcomes in horticulture

Unit Code	Unit Title
AHCCHM101	Follow basic chemical safety rules
AHCIRG101	Support irrigation work
AHCLSC101	Support landscape work
AHCMOM101	Assist with routine maintenance of machinery and equipment
AHCNAR101	Support natural area conservation
AHCNSY101	Support nursery work
AHCPGD101	Support gardening work
AHCPHT101	Support horticultural production
AHCTRF101	Support turf work
AHCWRK101	Maintain the workplace

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC10416 Certificate I in Permaculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification is an entry-level qualification aimed at individuals entering the permaculture industry. It allows individuals to develop basic skills and knowledge to prepare for work. They may undertake a range of simple tasks under close supervision. The range of technical skills and knowledge is limited.

The qualification is suited to VET in Schools programs or learners with no previous connection to permaculture or relevant employment history.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 7

- Core Units = 4
- Elective Units = 3

Core Units

Unit Code	Unit Title
AHCPER101	Observe permaculture principles and practices
AHCPER102	Support resource conservation practices
AHCPER103	Support plant care in a permaculture system

AHCWHS101	Work safely
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Elective Units

- Select at least 3 units from the elective list
- 1 unit may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected unit must be relevant to job outcomes in Permaculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 1

Unit Code	Unit Title
AHCPER104	Support animal care in a permaculture system
AHCPER105	Assist with maintaining structures in a permaculture system
AHCPER212	Use and maintain garden hand tools and equipment
AHCNAR101	Support natural area conservation
AHCORG101	Support organic production
AHCWRK101	Maintain the workplace

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC20116 Certificate II in Agriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an entry level occupational outcome in agriculture.

The qualification enables individuals to select a livestock production or cropping context as a job focus or, in the case of mixed farming enterprises, both.

Industry expects individuals with this qualification to carry out routine tasks under general supervision and exercise limited autonomy with some accountability for their own work.

This qualification is suitable for an Australian Apprenticeship.

Job roles vary across different industry sectors and may include:

- Assistant animal attendant/stockperson
- Assistant Farm or Station hand
- Assistant Farm or Station worker
- Assistant Farm or Station labourer

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 18

- Core Units = 3
- Elective Units = 15

Core Units

Work

Unit Code	Unit Title
AHCWRK204	Work effectively in the industry
AHCWRK209	Participate in environmentally sustainable work practices

Work health and safety

Unit Code	Unit Title
AHCWHS201	Participate in work health and safety processes

Elective Units

- Select 7 units from Group A
- Select 5 units from Group A or Group B
- 3 units aligned to AQF levels 1, 2, or 3 may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course.
Selected units must be relevant to job outcomes in agriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Biosecurity

Unit Code	Unit Title
AHCBIO201	Inspect and clean machinery for plant, animal and soil material
AHCBIO202	Follow site quarantine procedures

Broadacre cropping

Unit Code	Unit Title
AHCBAC201	Assist agricultural crop establishment
AHCBAC202	Assist agricultural crop maintenance

AHCBAC203	Assist agricultural crop harvesting
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Chemicals

Unit Code	Unit Title
AHCCHM201	Apply chemicals under supervision

First aid

Unit Code	Unit Title
HLTAID002	Provide basic emergency life support

Infrastructure

Unit Code	Unit Title
AHCINF201	Carry out basic electric fencing operations
AHCINF202	Install, maintain and repair farm fencing
AHCINF203	Maintain properties and structures
AHCINF204	Fabricate and repair metal or plastic structures

Irrigation

Unit Code	Unit Title
AHCIRG216	Assist with surface irrigation operations
AHCIRG217	Assist with pressurised irrigation operations

Livestock

Unit Code	Unit Title
AHCLSK202	Assist with surface irrigation operations
AHCLSK203	Assist with pressurised irrigation operations

AHCLSK204	Carry out regular livestock observation
AHCLSK205	Handle livestock using basic techniques
AHCLSK206	Identify and mark livestock
AHCLSK207	Load and unload livestock
AHCLSK208	Monitor livestock to parturition
AHCLSK209	Monitor water supplies
AHCLSK210	Muster and move livestock
AHCLSK211	Provide feed for livestock

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM201	Operate two wheel motorbikes
AHCMOM202	Operate tractors
AHCMOM203	Operate basic machinery and equipment
AHCMOM204	Undertake operational maintenance of machinery
AHCMOM205	Operate vehicles
AHCMOM212	Operate quad bikes
FWPCOT3259	Operate a four wheel drive on unsealed roads

Pest management

Unit Code	Unit Title
AHCPMG201	Treat weeds
AHCPMG202	Treat plant pests, diseases and disorders

Tools and equipment

Unit Code	Unit Title
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MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations

Work

Unit Code	Unit Title
AHCWRK201	Observe and report on weather
AHCWRK203	Operate in isolated and remote situations
AHCWRK205	Participate in workplace communications
AHCWRK206	Observe enterprise quality assurance procedures
AHCWRK207	Collect and record production data
TLID1001	Shift materials safely using manual handling methods

Group B

Artificial insemination

Unit Code	Unit Title
AHCAIS201	Assist with artificial insemination procedures

Beekeeping

Unit Code	Unit Title
AHCBEK201	Support beekeeping work
AHCBEK202	Use a bee smoker
AHCBEK203	Open and reassemble a beehive
AHCBEK204	Construct and repair beehives

Broadacre cropping

Unit Code	Unit Title
AHCBAC204	Prepare grain storages

Dairy

Unit Code	Unit Title
AHCDRY201	Milk livestock

Drainage

Unit Code	Unit Title
AHCDRG201	Maintain drainage systems

Irrigation

Unit Code	Unit Title
AHCIRG215	Assist with low volume irrigation operations

Livestock

Unit Code	Unit Title
AHCLSK201	Assist with feeding in a production system
AHCLSK213	Clean out production sheds
AHCLSK214	Maintain production growing environments
AHCLSK215	Carry out alpaca handling and husbandry operations

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM206	Conduct grader operations
AHCMOM207	Conduct front-end loader operations

AHCMOM208	Conduct excavator operations
AHCMOM209	Conduct dozer operations
AHCMOM210	Conduct scraper operations
AHCMOM214	Operate cane haulage vehicle
TLILIC2001	Licence to operate a forklift truck
TLID2022	Conduct weighbridge operations

Pork production

Unit Code	Unit Title
AHCPRK201	Care for health and welfare of pigs
AHCPRK203	Move and handle pigs
AHCPRK204	Care for weaner pigs
AHCPRK305	Care for grower and finisher pigs

Poultry

Unit Code	Unit Title
AHCPLY201	Collect store and handle eggs from breeder flocks
AHCPLY202	Maintain health and welfare of poultry
AHCPLY203	Set up shed for placement of day-old chickens
AHCPLY204	Collect and pack eggs for human consumption
AHCPLY205	Grade and pack eggs for human consumption

Production horticulture

Unit Code	Unit Title
AHCPHT201	Plant horticultural crops
AHCPHT202	Carry out canopy maintenance

AHCPHT203	Support horticultural crop harvesting
AHCPHT205	Carry out postharvest operations

Resources and Infrastructure

Unit Code	Unit Title
RIIWHS202D	Enter and work in confined spaces
RIIWHS204D	Work safely at heights

Shearing

Unit Code	Unit Title
AHCSHG201	Crutch sheep
AHCSHG202	Assist in preparing for shearing and crutching
AHCSHG203	Shear sheep to novice level
AHCSHG204	Shear sheep to improver level
AHCSHG205	Grind combs and cutters for machine shearing
AHCSHG206	Prepare handpiece and downtube for machine shearing
AHCSHG207	Shear goats
AHCSHG208	Shear alpacas
AHCSHG209	Support alpaca shearing operations

Soil and water conservation

Unit Code	Unit Title
AHCSAW201	Conduct erosion and sediment control activities

Soils and media

Unit Code	Unit Title
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AHCSOL202	Assist with soil or growing media sampling and testing
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Pests Management

Unit Code	Unit Title
AHCPMG309	Apply pest animal control techniques

Water

Unit Code	Unit Title
AHCWAT201	Set up, operate and maintain water delivery systems for compost

Wool

Unit Code	Unit Title
AHCWOL201	Pen sheep
AHCWOL202	Perform board duties
AHCWOL203	Carry out wool pressing
AHCWOL204	Undertake basic skirting of alpaca fleece

Qualification Mapping Information

This qualification is not equivalent to AHC20110 Certificate II in Agriculture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC20316 Certificate II in Production Horticulture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

The qualification enables individuals to select a tree cropping, vegetable or berry production, grape growing or mushroom production context as a job focus, or a mixture in the case of mixed enterprises.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 1
- Elective Units = 14

Core Units

Unit Code	Unit Title
AHCWHS201	Participate in work health and safety processes

Elective Units

- Select 4 units from Group A
- Select 7 units from Group A or B

- 3 units may be selected from Group B or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in production horticulture and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

Group A

Unit Code	Unit Title
AHCBIO202	Follow site quarantine procedures
AHCCHM201	Apply chemicals under supervision
AHCMOM203	Operate basic machinery and equipment
AHCPHT201	Plant horticultural crops
AHCPHT203	Support horticultural crop harvesting
AHCPHT205	Carry out post-harvest operations
AHCPMG201	Treat weeds
AHCPMG202	Treat plant pests, diseases and disorders
AHCSOL202	Assist with soil or growing media sampling and testing
AHCWRK209	Participate in environmentally sustainable work practices

Group B

Unit Code	Unit Title
AHCINF203	Maintain properties and structures
AHCIRG215	Assist with low volume irrigation operations
AHCIRG216	Assist with surface irrigation operations
AHCIRG217	Assist with pressurised irrigation operations
AHCIRG218	Assist with pump and flow control device operations
AHCIRG326	Operate irrigation injection equipment
AHCMOM201	Operate two wheel motorbikes

AHCMOM202	Operate tractors
AHCMOM204	Undertake operational maintenance of machinery
AHCMOM205	Operate vehicles
AHCMOM212	Operate quad bikes
AHCNSY202	Care for nursery plants
AHCNSY203	Undertake propagation activities
AHCPHT202	Carry out canopy maintenance
AHCPHT204	Undertake field budding and grafting
AHCPHT206	Handle and move mushroom boxes
AHCPHT207	Perform mushroom substrate process tasks
AHCPHT208	Water mushroom crops
AHCPHT209	Produce trellis dried grapes
AHCWRK201	Observe and report on weather
AHCWRK203	Operate in isolated and remote situations
AHCWRK206	Observe enterprise quality assurance procedures
AHCWRK207	Collect and record production data
AHCWRK208	Provide information on products and services
FDFOP2012A	Maintain food safety when loading, unloading and transporting food
FDFOP2016A	Work in a food handling area for non-food handlers
FDFWGG2001A	Bench graft vines
FDFWGG2002A	Carry out potting operations
FDFWGG2003A	Hand prune vines
FDFWGG2005A	Maintain callusing environment
FDFWGG2006A	Obtain and process rootlings
FDFWGG2008A	Train vines

FDFWGG2009A	Operate specialised canopy management equipment
FDFWGG2010A	Field graft vines
FDFWGG2015A	Support mechanical harvesting operations
FDFWGG2016A	Install and maintain vine trellis
FDFWGG2018A	Operate vineyard equipment
FDFWGG2020A	Carry out hot water treatment
FDFWGG2021A	Operate nursery cold storage facilities
FDFWGG2022A	Take and process vine cuttings
FWPCOT3259	Operate a four wheel drive on unsealed roads
MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations
TLID1001	Shift materials safely using manual handling methods
TLID2022	Conduct weighbridge operations
TLILIC2001	Licence to operate a forklift truck

Qualification Mapping Information

This qualification is equivalent to AHC20310 Certificate II in Production Horticulture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC20416 Certificate II in Horticulture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification underpins a range of work functions and job roles that can lead to a horticultural trade qualification.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 5
- Elective Units = 10

Core Units

Unit Code	Unit Title
AHCWHS201	Participate in work health and safety processes
AHCPCM201	Recognise plants
AHCPMG201	Treat weeds
AHCPMG202	Treat plant pests, diseases and disorders
AHCSOL202	Assist with soil or growing media sampling and testing

Elective Units

- Select 8 units from elective list below
 - 2 units may be selected from the elective list below or from this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in horticulture and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Unit Code	Unit Title
AHCARB201	Apply a range of treatments to trees
AHCARB303	Perform pruning operations
AHCARB312	Use standard climbing techniques to access trees
AHCMOM213	Operate and maintain chainsaws
AHCARB206	Operate and maintain stump grinding machines
AHCCHM201	Apply chemicals under supervision
AHCINF203	Maintain properties and structures
AHCINF204	Fabricate and repair metal or plastic structures
AHCIRG215	Assist with low volume irrigation operations
AHCIRG217	Assist with pressurised irrigation operations
AHCLSC201	Assist with landscape construction work
AHCLSC202	Construct low-profile timber or modular retaining walls
AHCLSC203	Install aggregate paths
AHCLSC204	Lay paving
AHCLSC205	Install tree protection devices
AHCMOM202	Operate tractors
AHCMOM203	Operate basic machinery and equipment
AHCMOM204	Undertake operational maintenance of machinery
AHCMOM205	Operate vehicles

AHCMOM211	Operate side by side utility vehicles
AHCMOM212	Operate quad bikes
AHCNSY201	Pot up plants
AHCNSY202	Care for nursery plants
AHCNSY203	Undertake propagation activities
AHCNSY204	Maintain indoor plants
AHCPCM202	Collect, prepare and preserve plant specimens
AHCPCM203	Fell small trees* <i>*prerequisite AHCMOM213 Operate and maintain chainsaws</i>
AHCPGD201	Plant trees and shrubs
AHCPGD202	Prepare and maintain plant displays
AHCPGD203	Prune shrubs and small trees
AHCPGD204	Transplant small trees
AHCPGD205	Prepare a grave site
AHCPGD206	Conduct visual inspection of park facilities
AHCTRF201	Assist with turf construction
AHCTRF202	Prepare turf surfaces for play
AHCTRF203	Renovate grassed areas
AHCTRF204	Support turf establishment
AHCWRK204	Work effectively in the industry
AHCWRK205	Participate in workplace communications
AHCWRK206	Observe enterprise quality assurance procedures
AHCWRK207	Collect and record production data
AHCWRK208	Provide information on products and services
AHCWRK209	Participate in environmentally sustainable work practices

FWPCOT2239	Trim and cut felled trees
FWPCOT2236	Fall trees manually (basic)
FWPFGM3212	Fall trees manually (intermediate)
FWPHAR2206	Operate a mobile chipper/mulcher
FWPFGM2207	Undertake brushcutting operations
MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations
SIRXADM001A	Apply retail office procedures
SIRXSLS002	Follow point-of-sale handling procedures
SIRXCEG001	Engage the customer
SIRXIND002	Organise and maintain the store environment
SIRXFIN002A	Perform retail finance duties
SIRRRTF001	Balance and secure point-of-sale terminal
SIRXICT001A	Operate retail technology
SIRRINV002	Control stock
SIRXMER201	Merchandise products
SIRXPDK001	Advise on products and services
SIRXSLS001	Sell to the retail customer
TLID1001	Shift materials safely using manual handling methods

Qualification Mapping Information

This qualification is equivalent to AHC20410 Certificate II in Horticulture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC20516 Certificate II in Arboriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides occupation outcomes with knowledge and skills to undertake a range of ground-based tree work activities and as a pathway for further learning required for tree workers in the arboriculture industry.

This qualification is suitable for an Australian Apprenticeship.

Occupational Licensing, legislative or certification requirements may apply to this qualification in some jurisdictions. Specific determination should be sought through the relevant State or Territory.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 20

- Core Units = 14
- Elective Units = 6

Core Units

Unit Code	Unit Title
CPCCOHS1001A	Work safely in the construction industry
AHCARB207	Perform ground based rigging* <i>AHCARB311 Tie, dress, set and finish arborist knots</i>
AHCARB208	Recognise trees

AHCARB209	Assist with aerial rescue from the ground* <i>HLTAID003 Provide first aid</i> <i>AHCARB207 Perform ground based rigging*</i> <i>AHCARB311 Tie, dress, set and finish arborist knots</i>
AHCARB210	Work effectively in the arboriculture industry
AHCARB303	Perform pruning operations* <i>FWPCOT2237 Maintain chainsaws</i> <i>AND</i> <i>FWPCOT2239 Trim and cut felled trees</i> <i>OR</i> <i>FWPCOT3238 Operate a pole saw</i>
AHCARB311	Tie, dress, set and finish arborist knots
FWPCOT2236	Fall trees manually (basic)
FWPCOT2237	Maintain chainsaws
FWPCOT2239	Trim and cut felled trees
FWPHAR2206	Operate a mobile chipper/mulcher
HLTAID003	Provide first aid
TLID1001	Shift materials safely using manual handling methods
UETTDREL14A	Working safely near live electrical apparatus as a non-electrical worker

Elective Units

- Select at least 4 units from the elective list
- An additional 2 units may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in Arboriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Unit Code	Unit Title
AHCARB201	Apply a range of treatments to trees* <i>AHCCHM201 Apply chemicals under supervision</i>
AHCARB206	Operate and maintain stump grinding machines* <i>AHCARB210 Work effectively in the arboriculture industry</i> <i>HLTAID003 Provide first aid</i>
AHCBIO201	Inspect and clean machinery for plant, animal and soil material
AHCCHM201	Apply chemicals under supervision
AHCLSC205	Install tree protection devices
AHCMOM204	Undertake operational maintenance of machinery
AHCMOM207	Conduct front-end loader operations
AHCPGD201	Plant trees and shrubs
AHCPMG201	Treat weeds
AHCSOL202	Assist with soil or growing media sampling and testing
AHCWRK209	Participate in environmentally sustainable work practices
FWPCOT3238	Operate a pole saw
FPIFGM3212	Fall trees manually (intermediate)
FWPFGM3213	Fall trees manually (advanced)
RIIWHS205D	Control traffic with stop-slow bat
TLILIC2005	Licence to operate a boom-type elevating work platform (boom length 11 metres or more)
CPCCCM2010B	Work safely at heights
CPCCCM3001C	Operate elevated work platforms up to 11 metres
UETDRRF03B	Perform EWP rescue
UETDRRF08B	Perform EWP controlled descent escape
HLTAID001	Provide cardiopulmonary resuscitation

Qualification Mapping Information

This qualification is not equivalent to AHC20513 Certificate II in Arboriculture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC20616 Certificate II in Parks and Gardens

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in parks and gardens. The parks and gardens industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 9
- Elective Units = 6

Core Units

Unit Code	Unit Title
AHCCHM201	Apply chemicals under supervision
AHCIRG217	Assist with pressurised irrigation operations
AHCMOM203	Operate basic machinery and equipment
AHCPGD201	Plant trees and shrubs
AHCPMG201	Treat weeds
AHCPCM201	Recognise plants

AHCSOL202	Assist with soil or growing media sampling and testing
AHCTRF204	Support turf establishment
AHCWHS201	Participate in work health and safety processes

Elective Units

- Select 3 units from elective list below
- 3 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in parks and gardens and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

Unit Code	Unit Title
AHCARB201	Apply a range of treatments to trees
AHCIRG215	Assist with low volume irrigation operations
AHCLSC201	Assist with landscape construction work
AHCMOM204	Undertake operational maintenance of machinery
AHCMOM211	Operate side by side utility vehicles
AHCNSY203	Undertake propagation activities
AHCPGD202	Prepare and maintain plant displays
AHCPGD203	Prune shrubs and small trees
AHCPGD205	Prepare a grave site
AHCPGD206	Conduct visual inspection of park facilities
AHCPMG202	Treat plant pests, diseases and disorders
AHCTRF202	Prepare turf surfaces for play
AHCTRF203	Renovate grassed areas
AHCWRK207	Collect and record production data

Qualification Mapping Information

This qualification is equivalent to AHC20610 Certificate II in Parks and Gardens.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC20716 Certificate II in Production Nursery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in production nursery industry. The nursery industry expects this qualification to be achieved to meet job outcomes at this level.

Job roles and titles covered by this qualification may include:

- production nursery assistant

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 9
- Elective Units = 7

Core Units

Unit Code	Unit Title
AHCCHM201	Apply chemicals under supervision
AHCIRG217	Assist with pressurised irrigation operations
AHCNSY201	Pot up plants
AHCNSY202	Care for nursery plants

AHCNSY203	Undertake propagation activities
AHCPCM201	Recognise plants
AHCPMG201	Treat weeds
AHCPMG202	Treat plant pests, diseases and disorders
AHCWHS201	Participate in work health and safety processes

Elective Units

- Select 5 units from list below
- 2 units may be selected from units listed in Certificates II or III of this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in nursery production and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

Unit Code	Unit Title
AHCBIO201	Inspect and clean machinery for plant, animal and soil material
AHCBIO202	Follow site quarantine procedures
AHCDRG201	Maintain drainage systems
AHCINF203	Maintain properties and structures
AHCMOM202	Operate tractors
AHCMOM203	Operate basic machinery and equipment
AHCMOM211	Operate side by side utility vehicles
AHCNSY204	Maintain indoor plants
AHCPGD203	Prune shrubs and small trees
AHCSOL202	Assist with soil or growing media sampling and testing
AHCWRK204	Work effectively in the industry
AHCWRK209	Participate in environmentally sustainable work practices
HLTAID002	Provide basic emergency life support

Qualification Mapping Information

This qualification is equivalent to AHC20710 Certificate II in Production Nursery.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC20816 Certificate II in Retail Nursery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in retail nursery industry. The nursery industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 7
- Elective Units = 8

Core Units

Unit Code	Unit Title
AHCNSY202	Care for nursery plants
AHCNSY204	Maintain indoor plants
AHCPCM201	Recognise plants
AHCSOL202	Assist with soil or growing media sampling and testing
AHCWHS201	Participate in work health and safety processes
SIRXSL002	Follow point-of-sale handling procedures

SIRXSLS001	Sell to the retail customer
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Elective Units

- Select 5 units from list below
- 3 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in retail nursery work and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

Group A

Unit Code	Unit Title
AHCBIO202	Follow site quarantine procedures
AHCCHM201	Apply chemicals under supervision
AHCDRG201	Maintain drainage systems
HLTAID002	Provide basic emergency life support
AHCIRG217	Assist with pressurised irrigation operations
AHCMOM203	Operate basic machinery and equipment
SIRXICT001A	Operate retail technology
SIRXADM001A	Apply retail office procedures
AHCNSY201	Pot up plants
AHCNSY203	Undertake propagation activities
AHCPMG202	Treat plant pests, diseases and disorders
AHCWRK204	Work effectively in the industry
AHCWRK209	Participate in environmentally sustainable work practices

Qualification Mapping Information

This qualification is equivalent to AHC20810 Certificate II in Retail Nursery.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC20916 Certificate II in Sports Turf Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in green-keeping. The sports turf industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 10
- Elective Units = 5

Core Units

Unit Code	Unit Title
AHCCHM201	Apply chemicals under supervision
AHCIRG217	Assist with pressurised irrigation operations
AHCMOM203	Operate basic machinery and equipment
AHCPGD201	Plant trees and shrubs
AHCPMG201	Treat weeds
AHCPMG202	Treat plant pests, diseases and disorders

AHCSOL202	Assist with soil or growing media sampling and testing
AHCTRF202	Prepare turf surfaces for play
AHCTRF204	Support turf establishment
AHCWHS201	Participate in work health and safety processes

Elective Units

- 5 units may be selected from the list below or from units aligned to AQF levels 2 or 3 from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in sports turf management and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

Unit Code	Unit Title
AHCINF203	Maintain properties and structures
AHCIRG215	Assist with low volume irrigation operations
AHCLSC201	Assist with landscape construction work
AHCMOM202	Operate tractors
AHCMOM213	Operate and maintain chainsaws
AHCMOM204	Undertake operational maintenance of machinery
AHCMOM211	Operate side by side utility vehicles
AHCPGD202	Prepare and maintain plant displays

Qualification Mapping Information

This qualification is equivalent to AHC20910 Certificate II in Sports Turf Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC21016 Certificate II in Conservation and Land Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in conservation and land management. Work would be carried out under general guidance and supervision.

The qualification enables individuals to select an Indigenous land management, conservation earthworks, lands, parks and wildlife or natural area management context as a job focus or a mix of these.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 2
- Elective Units = 13

Core Units

Unit Code	Unit Title
AHCWHS201	Participate in workplace health and safety processes
AHCWRK209	Participate in environmentally sustainable work practices

Elective Units

- Select at least 4 units from Group A
 - Select at least 6 units from Group A or Group B
 - A maximum of 3 units may be selected from the elective list of Certificates II or III of this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in conservation and land management and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

Group A

Fauna

Unit Code	Unit Title
AHCFAU201	Recognise fauna

Fire

Unit Code	Unit Title
AHCFIR201	Assist with prescribed burning
PUAFIR204B	Respond to wildfire * <i>PUAFIR215 Prevent injury</i>

Indigenous land management

Unit Code	Unit Title
AHCILM201	Maintain cultural places
AHCILM202	Observe and report plants or animals
AHCILM203	Record information about Country

Natural area restoration

Unit Code	Unit Title
AHCNAR201	Carry out natural area restoration works
AHCNAR202	Maintain wildlife habitat refuges

AHCNAR305	Collect native seed
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Lands, parks and wildlife

Unit Code	Unit Title
PUALAW001B	Protect and preserve incident scene

Parks and gardens

Unit Code	Unit Title
AHCPGD201	Plant trees and shrubs
AHCPGD206	Conduct visual inspection of park facilities

Pest management

Unit Code	Unit Title
AHCPMG201	Treat weeds
AHCPMG202	Treat plant pests, diseases and disorders
AHCPMG304	Use firearms to humanely destroy animals
AHCPMG307	Apply animal trapping techniques

Plants

Unit Code	Unit Title
AHCPCM201	Recognise plants
AHCPCM202	Collect, prepare and preserve plant specimens

Soil and water conservation

Unit Code	Unit Title
AHCSAW201	Conduct erosion and sediment control activities

Work

Unit Code	Unit Title
AHCWRK202	Observe environmental work practices
AHCWRK203	Operate in isolated and remote situations
AHCWRK204	Work effectively in the industry
AHCWRK205	Participate in workplace communications
SITXCCS002	Provide visitor information

Group B**Biosecurity**

Unit Code	Unit Title
AHCBIO201	Inspect and clean machinery for plant, animal and soil material

Business

Unit Code	Unit Title
BSBWOR204	Use business technology
BSBINM201	Process and maintain workplace information

Chemicals

Unit Code	Unit Title
AHCCHM201	Apply chemicals under supervision

First aid

Unit Code	Unit Title
HLTAID002	Provide basic emergency life support

HLTAID003	Apply first aid
HLTAID005	Provide first aid in remote situation

Infrastructure

Unit Code	Unit Title
AHCINF201	Carry out basic electric fencing operations
AHCINF202	Install, maintain and repair farm fencing
AHCINF203	Maintain properties and structures

Landscape

Unit Code	Unit Title
AHCLSC201	Assist with landscape construction work
AHCLSC203	Install aggregate paths
AHCLSC205	Install tree protection devices

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM201	Operate two wheel motorbikes
AHCMOM202	Operate tractors
AHCMOM203	Operate basic machinery and equipment
AHCMOM204	Undertake operational maintenance of machinery
AHCMOM205	Operate vehicles
AHCMOM206	Conduct grader operations
AHCMOM207	Conduct front-end loader operations
AHCMOM208	Conduct excavator operations
AHCMOM209	Conduct dozer operations

AHCMOM210	Conduct scraper operations
AHCMOM213	Operate and maintain chainsaws
FWPCOT3259	Operate a four wheel drive on unsealed roads
TLILIC2001	Licence to operate a forklift truck

Nursery

Unit Code	Unit Title
AHCNSY202	Care for nursery plants
AHCNSY203	Undertake propagation activities

Plants

Unit Code	Unit Title
AHCPCM203	Fell small trees

Soils and media

Unit Code	Unit Title
AHCSOL202	Assist with soil or growing media sampling and testing

Work

Unit Code	Unit Title
AHCWRK201	Observe and report on weather
AHCWRK206	Observe enterprise quality assurance procedures
AHCWRK207	Collect and record production data
AHCWRK208	Provide information on products and services
TLID1001	Shift materials safely using manual handling methods

Qualification Mapping Information

This qualification is equivalent to AHC21010 Certificate II in Conservation and Land Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC21116 Certificate II in Irrigation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification describes the job roles of supervised entry-level workers in the irrigation industry. It covers the employment areas of irrigation installation and irrigation operations and is suitable for VET in schools programs.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication. However, an individual Unit of Competency may specify relevant licensing, legislative or regulatory requirements. Specific determination should be sought through the relevant State or Territory.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 1
- Elective Units = 15

Core Units

Unit Code	Unit Title
AHCWHS201	Participate in work health and safety processes

Elective Units

- Select 6 units from Group A

- Select 7 units from Group A or B
- 2 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in irrigation and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

Group A

Unit Code	Unit Title
AHCIRG215	Assist with low volume irrigation operations
AHCIRG216	Assist with surface irrigation operations
AHCIRG217	Assist with pressurised irrigation operations
AHCIRG218	Assist with pump and flow control device operations
AHCSOL202	Assist with soil or growing media sampling and testing
NWP210B	Perform basic water quality tests
NWPIRR002	Operate basic flow control and regulating devices in irrigation systems
NWPIRR012	Construct open earthen channels or drains
AHCWRK209	Participate in environmentally sustainable work practices

Group B

Unit Code	Unit Title
AHCDRG201	Maintain drainage systems
AHCMOM203	Operate basic machinery and equipment
AHCWRK204	Work effectively in the industry
AHCWRK205	Participate in workplace communications
AHCWRK208	Provide information on products and services
CPCPCM2047A	Carry out levelling
CPCPCM2043A	Carry out OHS requirements
CPCPCM2040A	Read plans and calculate plumbing quantities

NWP203B	Plan and organise personal work activities
NWP209B	Use maps, plans, drawings and specifications
NWP215B	Install and replace basic volumetric metering equipment
NWPNET002	Prepare and restore work site
NWPIRR013	Construct and install irrigation delivery and stormwater drainage assets
TLID1001	Shift materials safely using manual handling methods

Qualification Mapping Information

This qualification is equivalent to AHC21112 Certificate II in Irrigation.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC21216 Certificate II in Rural Operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome for industries and agencies in rural and regional Australia.

Depending on the units selected individuals can be employed not only in rural industries but also other rural and regional sectors, such as local government, tourism, hospitality, transport, construction, community services, information technology and metals.

Industry expects individuals with this qualification to carry out routine tasks under general supervision and exercise limited autonomy with some accountability for their own work.

This qualification is suitable for an Australian Apprenticeship.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 3
- Elective Units = 12

Core Units

Work

Unit Code	Unit Title
AHCWRK204	Work effectively in the industry

AHCWRK209	Participate in environmentally sustainable work practices
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Work health and safety

Unit Code	Unit Title
AHCWHS201	Participate in work health and safety processes

Elective Units

- Select at least 7 units from Certificate II in this Training Package
- 5 units aligned to AQF levels 1, 2, or 3 may be selected from up to 3 other endorsed Training Packages or Accredited Courses
Selected units must be relevant to job outcomes in AgriFood industries and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

Qualification Mapping Information

This qualification is not equivalent to AHC21210 Certificate II in Rural Operations.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC21316 Certificate II in Shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an entry level occupational outcome in shearing. It recognises the work of a novice shearer who is able to shear a minimum of 40 adult merino sheep or 50 adult crossbred sheep per day to an acceptable industry standard. The shearing industry expects this qualification to be achieved to meet job outcomes at this level.

This qualification is suitable for an Australian Apprenticeship.

Possible job titles relevant to this qualification include:

- Shearer - novice level

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 9

- Core Units = 9
- Elective Units = 0

Core Units

Livestock

AHCLSK217	Apply animal welfare principles to handling and husbandry of livestock
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Shearing

Unit Code	Unit Title
AHCSHG201	Crutch sheep
AHCSHG203	Shear sheep to novice level
AHCSHG205	Grind combs and cutters for machine shearing
AHCSHG206	Prepare handpiece and downtube for machine shearing
AHCSHG210	Undertake basic shearing and crutching

Work

Unit Code	Unit Title
AHCWRK204	Work effectively in the industry
AHCWRK209	Participate in environmentally sustainable work practices

Work health and safety

Unit Code	Unit Title
AHCWHS201	Participate in work health and safety processes

Qualification Mapping Information

This qualification is not equivalent to AHC21310 Certificate II in Shearing.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC21416 Certificate II in Wool Handling

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an entry level occupational outcome in wool handling. The wool industry expects individuals with this qualification to carry out routine wool handling tasks under general supervision and exercise limited autonomy with some accountability for their own work.

This qualification is suitable for an Australian Apprenticeship.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 8

- Core Units = 8
- Elective Units = 0

Core Units

Livestock

Unit Code	Unit Title
AHCLSK217	Apply animal welfare principles to handling and husbandry of livestock

Shearing

Unit Code	Unit Title
AHCSHG202	Assist in preparing for shearing and crutching

Wool

Unit Code	Unit Title
AHCWOL201	Pen sheep
AHCWOL202	Perform board duties
AHCWOL203	Carry out wool pressing

Work

Unit Code	Unit Title
AHCWRK202	Observe environmental work practices
AHCWRK204	Work effectively in the industry

Work health and safety

Unit Code	Unit Title
AHCWHS201	Participate in work health and safety processes

Qualification Mapping Information

This qualification is not equivalent to AHC21410 Certificate II in Wool Handling.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC21516 Certificate II in Floriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in floriculture. The floriculture industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 1
- Elective Units = 14

Core Units

Unit Code	Unit Title
AHCWHS201	Participate in work health and safety processes

Elective Units

- Select 3 units from Group A
- Select 8 units from Group A or B

- 3 units may be selected from Group B or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in floriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

Group A

Unit Code	Unit Title
AHCPCM201	Recognise plants
AHCNSY201	Pot up plants
AHCNSY202	Care for nursery plants
AHCNSY203	Undertake propagation activities
AHCPHT201	Plant horticultural crops
AHCPHT203	Support horticultural crop harvesting
AHCPHT204	Undertake field budding and grafting
AHCPHT205	Carry out postharvest operations
AHCSOL202	Assist with soil or growing media sampling and testing

Group B

Unit Code	Unit Title
AHCBIO202	Follow site quarantine procedures
AHCCHM201	Apply chemicals under supervision
AHCDRG201	Maintain drainage systems
AHCINF203	Maintain properties and structures
AHCIRG233	Assist with pressurised irrigation operations
AHCMOM201	Operate two wheel motorbikes
AHCMOM202	Operate tractors
AHCMOM203	Operate basic machinery and equipment

AHCMOM204	Undertake operational maintenance of machinery
AHCMOM205	Operate vehicles
AHCMOM211	Operate side by side utility vehicles
FPICOT2359	Operate a four wheel drive on unsealed roads
TLILIC2001	Licence to operate a forklift truck
AHCNSY204	Maintain indoor plants
AHCPMG201	Treat weeds
AHCPMG202	Treat plant pests, diseases and disorders
AHCWRK206	Observe enterprise quality assurance procedures
AHCWRK207	Collect and record production data
AHCWRK208	Provide information on products and services
AHCWRK209	Participate in environmentally sustainable work practices
TLID1001	Shift materials safely using manual handling methods

Qualification Mapping Information

This qualification is equivalent to AHC21510 Certificate II in Floriculture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC21616 Certificate II in Landscaping

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in landscaping. The landscaping industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 8
- Elective Units = 7

Core Units

Unit Code	Unit Title
AHCLSC201	Assist with landscape construction work
AHCLSC202	Construct low-profile timber or modular retaining walls
AHCLSC203	Install aggregate paths
AHCLSC204	Lay paving
AHCMOM203	Operate basic machinery and equipment

AHCPGD201	Plant trees and shrubs
AHCPCM201	Recognise plants
AHCWHS201	Participate in work health and safety processes

Elective Units

- Select 4 units from list below
- 3 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in landscaping and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

Unit Code	Unit Title
AHCARB201	Apply a range of treatments to trees
AHCCHM201	Apply chemicals under supervision
AHCINF203	Maintain properties and structures
AHCINF204	Fabricate and repair metal or plastic structures
AHCIRG215	Assist with low volume irrigation operations
AHCIRG217	Assist with pressurised irrigation operations
AHCLSC205	Install tree protection devices
AHCMOM202	Operate tractors
AHCMOM203	Operate and maintain chainsaws
AHCMOM204	Undertake operational maintenance of machinery
AHCMOM205	Operate vehicles
AHCPGD202	Prepare and maintain plant displays
AHCPGD203	Prune shrubs and small trees
AHCPGD204	Transplant small trees
AHCPMG201	Treat weeds

AHCPMG202	Treat plant pests, diseases and disorders
AHCSOL202	Assist with soil or growing media sampling and testing
AHCTRF201	Assist with turf construction
AHCTRF202	Prepare turf surfaces for play
AHCTRF203	Renovate grassed areas
AHCTRF204	Support turf establishment
AHCWRK204	Work effectively in the industry
AHCWRK205	Participate in workplace communications
AHCWRK206	Observe enterprise quality assurance procedures
AHCWRK208	Provide information on products and services
AHCWRK209	Participate in environmentally sustainable work practices
AHCMOM213	Operate and maintain chainsaws

Qualification Mapping Information

This qualification is equivalent to AHC21610 Certificate II in Landscaping.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC21716 Certificate II in Permaculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in permaculture. Work would be carried out under general guidance and supervision.

The qualification is suited to VET in Schools, labour market and environmental skills programs. It provides a range of technical skills and knowledge in supporting food growing programs and community programs and is suited to learners with an interest in permaculture as a practical solution for sustainable living.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 6
- Elective Units = 9

Core Units

Unit Code	Unit Title
AHCPER201	Work effectively in permaculture
AHCPER203	Record information about the local bioregion
AHCPER206	Plant and maintain permaculture crops

AHCPER209	Recognise characteristics of plants and animals in a permaculture system
AHCPER212	Use and maintain garden hand tools and equipment
HLTWHS001	Participate in workplace health and safety

Elective Units

- Select 5 units from Group A
 - Select 4 units from Group A or B
 - 1 unit may be selected from Group B or this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in Permaculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 2

Group A

Unit Code	Unit Title
AHCPER202	Harvest, treat and store seed
AHCPER204	Check and operate permaculture water systems
AHCPER205	Prepare and store permaculture products
AHCPER207	Care for animals in a permaculture system
AHCPER208	Harvest permaculture crops
AHCPER210	Operate within community projects
AHCPER211	Recognise threats and create opportunities in a permaculture system
AHCPER213	Assist with basic earth shaping for nutrient capture and storage
AHCPER214	Propagate plants for a permaculture garden system
AHCPER215	Assist with garden soil health and plant nutrition

Group B

Unit Code	Unit Title
AHCILM203	Record information about country

AHCINF203	Maintain properties and structures
AHCMOM203	Operate basic machinery and equipment
AHCNAR201	Carry out natural area restoration works
AHCWRK201	Observe and report on weather
AHCWRK203	Operate in isolated and remote situations
AHCWRK209	Participate in environmentally sustainable work practices

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC30116 Certificate III in Agriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a general vocational outcome in agriculture. The qualification enables individuals to select a livestock production, cropping or livestock context as a job focus or, in the case of mixed farming enterprises, both cropping and livestock.

Industry expects individuals with this qualification to perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.

Job roles vary across different industry sectors and may include:

- Farm or station hand
- Farm or station worker
- Livestock transport driver

The testamur issued for this qualification is to be titled AHC30116 Certificate III in Agriculture.

An additional descriptor in brackets after the qualification title e.g. AHC30116 Certificate III in Agriculture (Livestock Transport) may be added by a Registered Training Organisation (RTO).

Any additional descriptor should reflect a minimum selection of at least ten sector specific elective units from Group A unit group.

This qualification is suitable for an Australian Apprenticeship.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 2

- Elective Units = 14

Core Units

Work

Unit Code	Unit Title
AHCWRK309	Apply environmentally sustainable work practices

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 5 units from Group A
- Select 5 units from Group A or Group B
- 4 units aligned to AQF levels 2, 3, or 4 may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in agriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

To achieve the Livestock Transport specialisation, the following units must be selected:

- Select at least 5 units from Group A Livestock sector and at least 5 units from Group A Livestock transport sector.
- Up to 4 units aligned to AQF levels 2, 3, or 4 may be selected from the elective Group A and/or Group B, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in agriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Agribusiness

Unit Code	Unit Title
AHCAGB301	Keep production records for a primary production business

Biosecurity

Unit Code	Unit Title
AHCBER301	Work effectively in an emergency disease or plant pest response
AHCBER303	Carry out emergency disease or plant pest control procedures at infected premises
AHCBER304	Carry out movement and security procedures
AHCBIO302	Identify and report unusual disease or plant pest signs
AHCBIO305	Apply biosecurity measures

Broadacre cropping

Unit Code	Unit Title
AHCBAC301	Conserve forage
AHCBAC302	Establish pastures and crops for livestock production
AHCBAC303	Prepare to receive grains and seeds
AHCBAC304	Test grains and seeds on receipt
AHCBAC305	Undertake preparation of land for agricultural crop production
AHCBAC306	Establish agricultural crops
AHCBAC307	Maintain agricultural crops
AHCBAC308	Undertake agricultural crop harvesting activities
AHCBAC310	Maintain pastures and crops for livestock production

Business

Unit Code	Unit Title
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AHCBUS301	Use hand held e-business tools
BSBFIA301	Maintain financial records
BSBINM201	Process and maintain workplace information
BSBITU203	Communicate electronically
BSBITU306	Design and produce business documents
BSBWOR204	Use business technology

Chemicals

Unit Code	Unit Title
AHCCHM301	Use application equipment to apply fumigant to confined spaces* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM302	Fumigate soil* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals
AHCCHM305	Conduct manual fumigation of vertebrate and invertebrate pests* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>

First aid

Unit Code	Unit Title
HLTAID003	Provide first aid
HLTAID005	Provide first aid in remote situations

Infrastructure

Unit Code	Unit Title
AHCINF301	Implement property improvement, construction and repair
AHCINF302	Plan and construct an electric fence
AHCINF303	Plan and construct conventional fencing

Irrigation

Unit Code	Unit Title
AHCIRG334	Operate and maintain gravity fed irrigation systems
AHCIRG332	Operate pressurised irrigation systems
AHCIRG306	Troubleshoot irrigation systems

Livestock

Unit Code	Unit Title
AHCLSK301	Administer medication to livestock
AHCLSK305	Maintain livestock water supplies
AHCLSK308	Identify and draft livestock
AHCLSK309	Implement animal health control programs
AHCLSK311	Implement feeding plans for livestock
AHCLSK314	Prepare animals for parturition
AHCLSK318	Rear newborn and young livestock
AHCLSK320	Coordinate and monitor livestock transport
AHCLSK323	Maintain and monitor feed stocks
AHCLSK324	Care for and train working dogs
AHCLSK325	Castrate livestock
AHCLSK331	Comply with industry animal welfare requirements

Livestock Transport

Unit Code	Unit Title
TLID3014	Load and unload vehicle carrying special loads
TLID3020	Care for livestock in transit
TLIE2008	Process workplace documentation
TLIE3002	Estimate/calculate mass, area and quantify dimensions
TLIE3004	Prepare workplace documents
TLIF2010	Apply fatigue management strategies
TLIH2001	Interpret road maps and navigate pre-determined routes
TLIH3002	Plan and navigate routes

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM301	Coordinate machinery and equipment maintenance and repair
AHCMOM302	Perform machinery maintenance
AHCMOM304	Operate machinery and equipment
AHCMOM305	Operate specialised machinery and equipment
AHCMOM306	Ground spread fertiliser and soil ameliorant
AHCMOM308	Operate broadacre and row crop harvest machinery and equipment
AHCMOM309	Operate broadacre sowing machinery and equipment
AHCMOM312	Operate row crop planting and seeding machinery and equipment

Merchandising and sales

Unit Code	Unit Title
AHCMER301	Process customer complaints

Pest management

Unit Code	Unit Title
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders

Work

Unit Code	Unit Title
AHCWRK204	Work effectively in the industry
AHCWRK301	Collect samples for a rural production or horticulture monitoring program
AHCWRK302	Monitor weather conditions
AHCWRK303	Respond to emergencies
AHCWRK305	Coordinate work site activities
AHCWRK306	Comply with industry quality assurance requirements
AHCWRK308	Handle bulk materials in storage area
AHCWRK311	Conduct site inspections

Group B**Animal care and management**

Unit Code	Unit Title
ACMGAS301A	Maintain and monitor animal health and wellbeing
ACMGAS303A	Plan for and provide nutritional requirements for animals

Artificial insemination

Unit Code	Unit Title
AHCAIS301	Collect semen

AHCAIS302	Process and store semen
AHCAIS303	Artificially inseminate livestock

Drainage

Unit Code	Unit Title
AHCDRG301	Install drainage systems

Fire

Unit Code	Unit Title
CPPFES2005A	Demonstrate first attack firefighting equipment
PUAFIR204B	Respond to wildfire* <i>PUAFIR215 Prevent injury</i>
PUATEA001B	Work in a team

Hydroponics

Unit Code	Unit Title
AHCHYD301	Implement a maintenance program for hydroponic systems
AHCHYD302	Install hydroponic systems

Livestock

Unit Code	Unit Title
AHCLSK302	Mate and monitor reproduction of alpacas
AHCLSK303	Carry out feedlot operations
AHCLSK304	Carry out post-mortem examination of livestock
AHCLSK306	Coordinate and monitor production performance
AHCLSK307	Euthanase livestock

AHCLSK310	Implement feeding plans for intensive production
AHCLSK312	Coordinate artificial insemination and fertility management of livestock
AHCLSK313	Monitor livestock production growing environments
AHCLSK315	Prepare for and implement natural mating of livestock
AHCLSK316	Prepare livestock for competition
AHCLSK317	Plan to exhibit livestock
AHCLSK319	Slaughter livestock
AHCLSK320	Coordinate and monitor livestock transport
AHCLSK321	Service and repair bores and windmills
AHCLSK322	Transport farm produce or bulk materials
AHCLSK326	Mix and mill standard stockfeed
AHCLSK327	Collect, store and administer colostrum
AHCLSK328	Remove and facilitate reuse of effluent and manure from an intensive production system
AHCLSK329	Implement procedures for calving
AHCLSK332	Monitor animals in intensive production systems
AHCLSK333	Monitor pen condition and ration suitability
AHCLSK334	Plan, prepare and conduct mulesing procedures
AHCLSK335	Conduct dropped ovary technique procedures for spaying cattle

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM202	Operate tractors
AHCMOM206	Conduct grader operations
AHCMOM207	Conduct front-end loader operations

AHCMOM211	Operate side by side utility vehicles
AHCMOM212	Operate quad bikes
AHCMOM307	Operate a cane harvester
AHCMOM310	Operate land-forming machinery and equipment
AHCMOM311	Operate precision control technology
AHCMOM313	Operate mobile irrigation machinery and equipment
AHCMOM314	Transport machinery
AHCMOM315	Operate chemical application machinery and equipment
RIIMPO318E	Conduct civil construction skid steer loader operations
RIIMPO319D	Conduct backhoe/loader operations
RIIMPO324E	Conduct civil construction grader operations
TLILIC2001	Licence to operate a forklift truck

Plants

Unit Code	Unit Title
AHCPCM301	Implement a plant nutrition program
AHCPCM302	Provide information on plants and their culture
AHCPCM303	Identify plant specimens
AHCPGD402	Plan a plant establishment program

Production horticulture

Unit Code	Unit Title
AHCPHT303	Implement a post-harvest program
AHCPHT304	Harvest horticultural crops mechanically
AHCPHT305	Regulate crops
AHCPHT306	Establish horticultural crops

AHCPHT310	Coordinate horticultural crop harvesting
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Resources and Infrastructure

Unit Code	Unit Title
RIIWHS202D	Enter and work in confined spaces
RIIWHS204D	Work safely at heights

Shearing

Unit Code	Unit Title
AHCSHG301	Prepare livestock for shearing
AHCSHG302	Prepare combs and cutters for machine shearing
AHCSHG306	Carry out post-shearing procedures
AHCSHG307	Plan and prepare for alpaca shearing

Soils and media

Unit Code	Unit Title
AHCSOL401	Sample soils and interpret results

Tools and equipment

Unit Code	Unit Title
AHCINF304	Install and terminate extra low voltage wiring systems
MEM05004C	Perform routine oxy acetylene welding
MEM05007C	Perform manual heating and thermal cutting
MEM05012C	Perform routine manual metal arc welding
MEM05015D	Weld using manual metal arc welding process* <i>MEM05012 Perform routine manual metal arc welding</i>

	<p><i>MEM05051 Select welding processes</i></p> <p><i>MEM05052 Apply safe welding practices</i></p> <p><i>MEM12023 Perform engineering measurements</i></p> <p><i>MEM18001 Use hand tools</i></p> <p><i>MEM18002 Use power tools/hand held operations</i></p>
MEM05017D	<p>Weld using gas metal arc welding process*</p> <p><i>MEM05050 Perform routine gas metal arc welding</i></p> <p><i>MEM05051 Select welding processes</i></p> <p><i>MEM05052 Apply safe welding practices</i></p> <p><i>MEM12023 Perform engineering measurements</i></p> <p><i>MEM18001 Use hand tools</i></p> <p><i>MEM18002 Use power tools/hand held operations</i></p>
MEM05019D	<p>Weld using gas tungsten arc welding process*</p> <p><i>MEM05049 Perform routine gas tungsten arc welding</i></p> <p><i>MEM05051 Select welding processes</i></p> <p><i>MEM05052 Apply safe welding practices</i></p> <p><i>MEM12023 Perform engineering measurements</i></p> <p><i>MEM18001 Use hand tools</i></p> <p><i>MEM18002 Use power tools/hand held operations</i></p>
MEM05049B	Perform routine gas tungsten arc welding
MEM05050B	Perform routine gas metal arc welding

Pest Management

Unit Code	Unit Title
AHCPMG308	Implement pest management strategies

Wool

Unit Code	Unit Title
AHCWOL304	Prepare fleece wool for classing
AHCWOL308	Prepare facilities for shearing and crutching

AHCWOL310	Press wool for a clip
AHCWOL311	Perform shed duties
AHCWOL312	Class goat fibre
AHCWOL313	Class alpaca fleece

Qualification Mapping Information

This qualification is not equivalent to AHC30110 Certificate III in Agriculture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC30216 Certificate III in Agriculture (Dairy Production)

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in the dairy industry. The dairy industry expects that graduates from this qualification will be able to perform a range of tasks associated with a person performing the job role of a dairy farmhand.

This qualification is suitable for an Australian Apprenticeship.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 17

- Core Units = 11
- Elective Units = 6

Core Units

Broadacre cropping

AHCBAC302	Establish pastures and crops for livestock production
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Chemicals

AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals

Dairy

AHCDRY301	Coordinate milking operations
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Infrastructure

AHCINF302	Plan and construct an electric fence
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Livestock

AHCLSK309	Implement animal health control programs
AHCLSK311	Implement feeding plans for livestock
AHCLSK318	Rear newborn and young livestock
AHCLSK329	Implement procedures for calving

Work

AHCWRK303	Respond to emergencies
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Work health and safety

AHCWHS301	Contribute to work health and safety processes
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Elective Units

- Select at least 3 units from the elective list
- 3 units aligned to AQF levels 2, 3, or 4 may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in dairying and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Artificial insemination

Unit Code	Unit Title
AHCAIS303	Artificially inseminate livestock

Broadacre cropping

Unit Code	Unit Title
AHCBAC301	Conserve forage
AHCBAC305	Undertake preparation of land for agricultural crop production
AHCBAC306	Establish agricultural crops
AHCBAC307	Maintain agricultural crops
AHCBAC308	Undertake agricultural crop harvesting activities
AHCBAC310	Maintain pastures and crops for livestock production

Dairy

Unit Code	Unit Title
AHCDRY302	Operate a dairy recycling system
Infrastructure	
AHCINF301	Implement property improvement, construction and repair
AHCINF303	Plan and construct conventional fencing

Livestock

Unit Code	Unit Title
AHCLSK301	Administer medication to livestock
AHCLSK305	Maintain livestock water supplies
AHCLSK308	Identify and draft livestock
AHCLSK312	Coordinate artificial insemination and fertility management of livestock
AHCLSK315	Prepare for and implement natural mating of livestock
AHCLSK320	Coordinate and monitor livestock transport
AHCLSK321	Service and repair bores and windmills

AHCLSK322	Transport farm produce or bulk materials
AHCLSK323	Maintain and monitor feed stocks
AHCLSK325	Castrate livestock
AHCLSK326	Mix and mill standard stockfeed
AHCLSK327	Collect, store and administer colostrum
AHCLSK328	Remove and facilitate reuse of effluent and manure from an intensive production system
AHCLSK331	Comply with industry animal welfare requirements

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM305	Operate specialised machinery and equipment

Plants

Unit Code	Unit Title
AHCPCM301	Implement a plant nutrition program

Work

Unit Code	Unit Title
AHCWRK301	Collect samples for a rural production or horticulture monitoring program
AHCWRK302	Monitor weather conditions
AHCWRK305	Coordinate work site activities
AHCWRK306	Comply with industry quality assurance requirements
AHCWRK309	Apply environmentally sustainable work practices
AHCWRK310	Provide on-job training support

Qualification Mapping Information

This qualification is equivalent to AHC30210 Certificate III in Agriculture (Dairy Production).

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC30416 Certificate III in Pork Production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in the pork industry. The pork industry expects that graduates from this qualification will be able to perform a range of tasks associated with a person performing the job role of a piggery attendant.

The pork industry expects that graduates from this qualification will be able to perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.

Possible job roles relevant to this qualification include:

- Piggery attendant
- Stockperson

This qualification is suitable for an Australian Apprenticeship.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 2
- Elective Units = 13

Core Units

Livestock

Unit Code	Unit Title
AHCLSK331	Comply with industry animal welfare requirements

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 6 units from Group A
- Select 4 units from Group A or Group B
- 3 units aligned to AQF levels 2, 3, or 4 may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in pork production and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Group A

Biosecurity

Unit Code	Unit Title
AHCBIO305	Apply biosecurity measures

Livestock

Unit Code	Unit Title
AHCLSK301	Administer medication to livestock
AHCLSK304	Carry out post-mortem examination of livestock
AHCLSK307	Euthanase livestock
AHCLSK308	Identify and draft livestock
AHCLSK309	Implement animal health control programs

AHCLSK313	Monitor livestock production growing environments
AHCLSK314	Prepare animals for parturition
AHCLSK318	Rear newborn and young livestock
AHCLSK323	Maintain and monitor feed stocks
AHCLSK328	Remove and facilitate reuse of effluent and manure from an intensive production system

Pork production

Unit Code	Unit Title
AHCPRK301	Pregnancy test pigs
AHCPRK303	Artificially inseminate pigs

Work

Unit Code	Unit Title
AHCWRK305	Coordinate work site activities
AHCWRK309	Apply environmentally sustainable work practices

Group B

Artificial insemination

Unit Code	Unit Title
AHCAIS302	Process and store semen

Infrastructure

Unit Code	Unit Title
AHCINF302	Plan and construct an electric fence

Livestock

Unit Code	Unit Title
AHCLSK303	Carry out feedlot operations
AHCLSK305	Maintain livestock water supplies
AHCLSK306	Coordinate and monitor production performance
AHCLSK310	Implement feeding plans for intensive production
AHCLSK311	Implement feeding plans for livestock
AHCLSK315	Prepare for and implement natural mating of livestock
AHCLSK319	Slaughter livestock
AHCLSK320	Coordinate and monitor livestock transport
AHCLSK322	Transport farm produce or bulk materials
AHCLSK325	Castrate livestock
AHCLSK326	Mix and mill standard stockfeed
AHCLSK327	Collect, store and administer colostrum

Machinery Operation and Maintenance

Unit Code	Unit Title
AHCMOM201	Operate two wheel motorbikes
AHCMOM202	Operate tractors
AHCMOM203	Operate basic machinery and equipment
AHCMOM205	Operate vehicles
AHCMOM207	Conduct front-end loader operations
AHCMOM211	Operate side by side utility vehicles
AHCMOM212	Operate quad bikes
AHCMOM305	Operate specialised machinery and equipment

Natural Area Restoration

Unit Code	Unit Title
AHCNAR302	Collect and preserve biological samples

Pest management

Unit Code	Unit Title
AHCPMG308	Implement pest management strategies

Pork production

Unit Code	Unit Title
AHCPRK204	Care for weaner pigs
AHCPRK206	Conduct outdoor pig operations
AHCPRK302	Treat rectal prolapse in pigs
AHCPRK304	Mate pigs and monitor dry sow performance
AHCPRK305	Care for grower and finisher pigs
AHCPRK306	Monitor and maintain outdoor pig production
AHCPRK402	Maintain outdoor pig production environment

Work

Unit Code	Unit Title
AHCWRK205	Participate in workplace communications

Qualification Mapping Information

This qualification is not equivalent to AHC30410 Certificate III in Pork Production.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC30516 Certificate III in Poultry Production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in the poultry industry. The poultry industry expects that graduates from this qualification will be able to perform a range of tasks associated with a person performing the job role of a poultry hand.

Job roles vary and may include:

- Poultry hand
- Poultry stockperson

The poultry industry expects that graduates from this qualification will be able to perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.

This qualification is suitable for an Australian Apprenticeship.

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 3
- Elective Units = 13

Core Units

Biosecurity

Unit Code	Unit Title
AHCPLY307	Implement and monitor biosecurity measures in poultry production

Livestock

Unit Code	Unit Title
AHCLSK331	Comply with industry animal welfare requirements

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 10 units from Group A
- Select 2 units from Group A or Group B
- 1 unit aligned to AQF levels 2, 3, or 4 may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in the Poultry sector and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Livestock

Unit Code	Unit Title
AHCLSK301	Administer medication to livestock
AHCLSK304	Carry out post-mortem examination of livestock
AHCLSK306	Coordinate and monitor production performance

AHCLSK307	Euthanase livestock
AHCLSK309	Implement animal health control programs
AHCLSK310	Implement feeding plans for intensive production
AHCLSK313	Monitor livestock production growing environments

Poultry

Unit Code	Unit Title
AHCPLY203	Set up shed for placement of day-old chickens
AHCPLY206	Catch and load poultry
AHCPLY207	Identify and sex poultry
AHCPLY302	Brood poultry
AHCPLY304	Incubate eggs
AHCPLY306	Clean and disinfect poultry production sheds

Pest Management

Unit Code	Unit Title
AHCPMG308	Implement pest management strategies

Work

Unit Code	Unit Title
AHCWRK204	Work effectively in the industry
AHCWRK205	Participate in workplace communications
AHCWRK306	Comply with industry quality assurance requirements
AHCWRK309	Apply environmentally sustainable work practices

Group B

Agribusiness

Unit Code	Unit Title
AHCAGB301	Keep production records for a primary production business

Biosecurity

Unit Code	Unit Title
AHCBIO302	Identify and report unusual disease or plant pest signs

Chemicals

Unit Code	Unit Title
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals

Food

Unit Code	Unit Title
FDFTEC3001A	Participate in a HACCP team* <i>FDFFS2001A Implement the food safety program and procedures</i>

Livestock

Unit Code	Unit Title
AHCLSK323	Maintain and monitor feed stocks
AHCLSK328	Remove and facilitate reuse of effluent and manure from an intensive production system

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM301	Coordinate machinery and equipment maintenance and repair

AHCMOM304	Operate machinery and equipment
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Poultry

Unit Code	Unit Title
AHCPLY301	Artificially inseminate poultry
AHCPLY305	Beak tip poultry* <i>AHCLSK307 Euthanase livestock</i>

Work

Unit Code	Unit Title
AHCWRK310	Provide on-job training support

Qualification Mapping Information

This qualification is not equivalent to AHC30510 Certificate III in Poultry Production.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC30616 Certificate III in Production Horticulture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a vocational outcome in production horticulture. The qualification enables individuals to select a tree cropping, vegetable or berry production, grape growing or mushroom production context as a job focus, or a mixture in the case of mixed enterprises.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 1
- Elective Units = 14

Core Units

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 4 units from Group A
- Select 7 units from Group A or B

- 3 units may be selected from Group B or from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in production horticulture and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Group A

Unit Code	Unit Title
AHCBIO302	Identify and report unusual disease or plant pest signs
AHCBIO305	Apply biosecurity measures
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport, handle and store chemicals
AHCIRG332	Operate pressurised irrigation systems
AHCMOM304	Operate machinery and equipment
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders
AHCPHT303	Implement a post-harvest program
AHCPHT304	Harvest horticultural crops mechanically
AHCPHT306	Establish horticultural crops
AHCPHT310	Coordinate horticultural crop harvesting
AHCWRK309	Apply environmentally sustainable work practices

Group B

Unit Code	Unit Title
AHCBER301	Work effectively in an emergency disease or plant pest response
AHCBER303	Carry out emergency disease or plant pest control procedures at infected premises
AHCBER304	Carry out movement and security procedures
AHCCHM301	Conduct fumigation in enclosed spaces*

	<i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM302	Fumigate soil using chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCDRG301	Install drainage systems
AHCDRG302	Measure drainage system performance
AHCDRG303	Troubleshoot drainage systems
AHCHYD301	Implement a maintenance program for hydroponic systems
AHCHYD302	Install hydroponic systems
AHCIRG333	Maintain pressurised irrigation systems
AHCIRG331	Install pressurised irrigation systems
AHCIRG303	Measure irrigation delivery system performance
AHCIRG306	Troubleshoot irrigation systems
AHCMOM301	Coordinate machinery and equipment maintenance and repair
AHCMOM302	Perform machinery maintenance
AHCMOM305	Operate specialised machinery and equipment
AHCMOM315	Operate chemical application machinery and equipment
FDFWGG3008A	Operate a mechanical harvester
FDFWGG3013A	Operate spreading and seeding equipment
FDFWGG3004A	Coordinate nursery activities
FDFWGG3005A	Perform field nursery activities
FDFWGG3009A	Monitor and maintain nursery plants
FDFWGG3011A	Perform shed nursery activities
AHCPMG310	Prepare, monitor and maintain biological agents
AHCPHT305	Regulate crops

AHCPHT307	Prepare raw materials and compost the feedstocks
AHCPHT308	Prepare value added compost-based products
AHCPHT309	Supervise mushroom substrate preparation
FDFWGG3002A	Coordinate canopy management activities
FDFWGG3006A	Coordinate hand pruning activities
AHCWRK302	Monitor weather conditions
AHCWRK303	Respond to emergencies
AHCWRK305	Coordinate work site activities
AHCWRK306	Comply with industry quality assurance requirements
AHCWRK308	Handle bulk materials in storage area

Qualification Mapping Information

This qualification is equivalent to AHC30610 Certificate III in Production Horticulture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC30716 Certificate III in Horticulture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a general vocational outcome in amenity horticulture. It is NOT a suitable pathway for horticultural trades.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 5
- Elective Units = 11

Core Units

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes
AHCPCM302	Provide information on plants and their culture
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders
AHCSOL303	Implement soil improvements for garden and turf areas

Elective Units

- Select 8 units from elective list below
- 3 units aligned to AQF levels 2, 3 or 4 may be selected from electives below or from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in horticulture and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Unit Code	Unit Title
AHCARB301	Implement a tree maintenance program
AHCPCM304	Report on health and condition of trees
AHCARB303	Perform pruning operations
AHCARB305	Dismantle trees
AHCARB306	Undertake aerial rescue
AHCARB307	Use advanced climbing techniques* <i>AHCARB312 Use standard climbing techniques to access trees**</i> <i>AHCARB311 Tie, dress, set and finish arborist knots</i> <i>HLTAID003 Provide first aid</i>
AHCARB308	Install cable and bracing
AHCARB309	Implement a tree protection program
AHCBER301	Work effectively in an emergency disease or plant pest response
AHCBIO302	Identify and report unusual disease or plant pest signs
AHCBER303	Carry out emergency disease or plant pest control procedures at infected premises
AHCBER304	Carry out movement and security procedures
AHCBIO305	Monitor and review biosecurity measures
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport, handle and store chemicals
AHCIRG303	Measure irrigation delivery system performance

AHCIRG306	Troubleshoot irrigation systems
AHCIRG331	Install pressurised irrigation systems
AHCIRG332	Operate pressurised irrigation systems
AHCIRG333	Maintain pressurised irrigation systems
AHCLSC301	Set out site for construction works
AHCLSC302	Construct landscape features using concrete
AHCLSC303	Construct brick and or block structures and features
AHCLSC304	Erect timber structures and features
AHCLSC305	Construct stone structures and features
AHCLSC306	Implement a paving project
AHCLSC307	Implement a retaining wall project
AHCLSC308	Install metal structures and features
AHCLSC309	Install water features
AHCLSC310	Implement a tree transplanting program
AHCMOM304	Operate machinery and equipment
AHCNSY301	Maintain nursery plants
AHCNSY302	Receive and dispatch nursery products
AHCNSY303	Install and maintain plant displays
AHCNSY304	Deliver and promote sales of plants
AHCNSY305	Prepare specialised plants
AHCNSY306	Implement a propagation plan
AHCNSY307	Operate fertigation equipment
AHCPCM301	Implement a plant nutrition program
AHCPCM303	Identify plant specimens
AHCPGD301	Implement a plant establishment program

AHCPGD302	Plan and maintain plant displays
AHCPGD303	Perform specialist amenity pruning
AHCPGD304	Implement a landscape maintenance program
AHCPGD305	Conduct operational inspection of park facilities
AHCPGD306	Implement a maintenance program for an aquatic environment
AHCSOL301	Prepare growing media
AHCTRF301	Construct turf playing surfaces
AHCTRF302	Establish turf
AHCTRF303	Implement a grassed area maintenance program
AHCTRF304	Monitor turf health
AHCTRF305	Renovate sports turf
AHCWAT301	Monitor and operate water treatment processes
AHCWRK305	Coordinate work site activities
AHCWRK311	Conduct site inspection
AHCWRK309	Apply environmentally sustainable work practices
FWPCOT3238	Operate a pole saw
FWPFGM3213	Fall trees manually (advanced)
RIIWHS302D	Implement traffic management plan

Qualification Mapping Information

This qualification is equivalent to AHC30710 Certificate III in Horticulture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC30816 Certificate III in Arboriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides occupation outcomes with a range of specialised knowledge and skills to undertake skilled work and as a pathway for further learning required for arborists in the arboriculture industry.

Possible job titles relevant to this qualification include the general title Arborist, and the specialisation titles:

- Climbing Arborist
- EWP Arborist
- Ground-based Arborist

The qualification covers both ground-based workers and those working at heights. This qualification does not require a person to work at heights, however, units that include the skills and knowledge required to work at heights, both from an elevated work platform (EWP) and by climbing trees, are included as elective streams.

The testamur issued for this qualification is to be titled AHC30815 Certificate III in Arboriculture.

An additional descriptor should be added by the RTO to reflect unit selection for a specialisation, for example:

- AHC30815 Certificate III in Arboriculture (Climbing)
- AHC30815 Certificate III in Arboriculture (EWP)
- AHC30815 Certificate III in Arboriculture (Climbing and EWP)

This qualification is suitable for an Australian Apprenticeship.

Occupational Licensing, legislative or certification requirements may apply to this qualification in some jurisdictions. Specific determination should be sought through the relevant State or Territory.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 23

- Core Units = 14
- Elective Units = 9

Core Units

Unit Code	Unit Title
CPCCOHS1001A	Work safely in the construction industry
AHCARB302	Inspect trees for access and work* <i>AHCARB313 Identify trees</i>
AHCARB303	Perform pruning operations* <i>FPICOT2237A Maintain chainsaws</i> <i>AND</i> <i>FPICOT2239A Trim and cut felled trees</i> <i>OR</i> <i>FPICOT3238B Operate a pole saw</i>
AHCARB311	Tie, dress, set and finish arborist knots
AHCARB313	Identify trees
AHCWRK305	Coordinate work site activities
FWPCOT2237	Maintain chainsaws
FWPCOT2239	Trim and cut felled trees
FWPFGM3212	Fall trees manually (intermediate)
FWPCOT3238	Operate a pole saw
HLTAID003	Provide first aid
BSBWOR204	Use business technology
TLID1001	Shift materials safely using manual handling methods
UETTDREL14A	Working safely near live electrical apparatus as a non-electrical worker

Elective Units

Climbing Specialisation

In order to achieve the Climbing specialisation, select all 5 units from Group A.

- Select at least 1 unit from Group D
- An additional 3 units may be selected from Group D, from this or any other endorsed Training Package or Accredited Course
Selected elective units must be relevant to job outcomes in Arboriculture and must be chosen to ensure the integrity of the qualification at AQF level 3

Group A – Climbing

Unit Code	Unit Title
AHCARB305	Dismantle trees* <i>AHCARB310 Perform aerial rigging**</i> <i>AHCARB207 Perform ground based rigging***</i> <i>AHCARB311 Tie, dress, set and finish arborist knots</i> AND <i>AHCARB307 Use advanced climbing techniques**</i> <i>AHCARB312 Use standard climbing techniques to access trees***</i> <i>AHCARB311 Tie, dress, set and finish arborist knots</i> OR <i>TLILIC2005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</i> <i>FWPFGM3212 Fall trees manually (intermediate)</i>
AHCARB306	Undertake aerial rescue* <i>HLTAID003 Provide first aid</i> <i>AHCARB310 Perform aerial rigging**</i> <i>AHCARB207 Perform ground based rigging***</i> <i>AHCARB311 Tie, dress, set and finish arborist knots</i> AND <i>AHCARB307 Use advanced climbing techniques**</i> <i>AHCARB312 Use standard climbing techniques to access trees***</i>

	<p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p><i>OR</i></p> <p><i>TLILIC2005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</i></p>
AHCARB307	<p>Use advanced climbing techniques*</p> <p><i>AHCARB312 Use standard climbing techniques to access trees**</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p>
AHCARB310	<p>Perform aerial rigging*</p> <p><i>AHCARB207 Perform ground based rigging***</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p><i>AND</i></p> <p><i>AHCARB307 Use advanced climbing techniques**</i></p> <p><i>AHCARB312 Use standard climbing techniques to access trees***</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p><i>OR</i></p> <p><i>TLILIC2005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</i><i>AHCARB307 Use advanced climbing techniques*</i></p>
AHCARB312	<p>Use standard climbing techniques to access trees*</p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p>

Elevated Work Platform (EWP) Specialisation

In order to achieve the EWP specialisation, select all 4 units from Group B.

- select 2 units from Group D
 - an additional 3 units may be selected from Group D, from this Training Package or from any other endorsed Training Package or Accredited Course
- Selected elective units must be relevant to job outcomes in Arboriculture and must be chosen to ensure the integrity of the qualification at AQF level 3

Group B – EWP

Unit Code	Unit Title
TLILIC2005	Licence to operate a boom-type elevating work platform (boom length 11 metres or more)

AHCARB305	<p>Dismantle trees*</p> <p><i>AHCARB310 Perform aerial rigging**</i></p> <p><i>AHCARB207 Perform ground based rigging***</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p>AND</p> <p><i>AHCARB307 Use advanced climbing techniques**</i></p> <p><i>AHCARB312 Use standard climbing techniques to access trees***</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p>OR</p> <p><i>TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</i></p> <p><i>FPIFGM3212 Fall trees manually (intermediate)</i></p>
AHCARB306	<p>Undertake aerial rescue*</p> <p><i>HLTAID003 Provide first aid</i></p> <p><i>AHCARB310 Perform aerial rigging**</i></p> <p><i>AHCARB207 Perform ground based rigging***</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p>AND</p> <p><i>AHCARB307 Use advanced climbing techniques**</i></p> <p><i>Use standard climbing techniques to access trees***</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p>OR</p> <p><i>TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</i></p>
AHCARB310	<p>Perform aerial rigging*</p> <p><i>AHCARB310 Perform aerial rigging**</i></p> <p><i>AHCARB207 Perform ground based rigging***</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p>AND</p> <p><i>AHCARB307 Use advanced climbing techniques**</i></p> <p><i>Use standard climbing techniques to access trees***</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p>OR</p>

	<i>TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</i>
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Climbing and EWP Specialisation

- In order to achieve the Climbing and EWP specialisation, select all 6 units from Group C
- an additional 3 units may be selected from Group D, from this Training Package or from any other endorsed Training Package or Accredited Course
Selected elective units must be relevant to job outcomes in Arboriculture and must be chosen to ensure the integrity of the qualification at AQF level 3

Group C – Climbing and EWP

Unit Code	Unit Title
TLILIC2005	Licence to operate a boom-type elevating work platform (boom length 11 metres or more)
AHCARB305	Dismantle trees* <i>AHCARB310 Perform aerial rigging**</i> <i>AHCARB207 Perform ground based rigging***</i> <i>AHCARB311 Tie, dress, set and finish arborist knots</i> AND <i>AHCARB307 Use advanced climbing techniques**</i> <i>Use standard climbing techniques to access trees***</i> <i>AHCARB311 Tie, dress, set and finish arborist knots</i> OR <i>TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</i> <i>FPIFGM3212 Fall trees manually (intermediate)</i>
AHCARB306	Undertake aerial rescue* <i>HLTAID003 Provide first aid</i> <i>AHCARB310 Perform aerial rigging**</i> <i>AHCARB207 Perform ground based rigging***</i> <i>AHCARB311 Tie, dress, set and finish arborist knots</i> AND <i>AHCARB307 Use advanced climbing techniques***</i>

	<p><i>AHCARB312 Use standard climbing techniques to access trees****</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p><i>OR</i></p> <p><i>TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</i></p>
AHCARB307	<p>Use advanced climbing techniques*</p> <p><i>AHCARB312 Use standard climbing techniques to access trees**</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p>
AHCARB310	<p>Perform aerial rigging*</p> <p><i>AHCARB207 Perform ground based rigging**</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p><i>AND</i></p> <p><i>AHCARB307 Use advanced climbing techniques**</i></p> <p><i>Use standard climbing techniques to access trees****</i></p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p> <p><i>OR</i></p> <p><i>TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</i></p>
AHCARB312	<p>Use standard climbing techniques to access trees*</p> <p><i>AHCARB311 Tie, dress, set and finish arborist knots</i></p>

For a ground-based outcome without a working-at-height specialisation:

- select 6 units from Group D
 - an additional 3 units may be selected from this Training Package or from any other endorsed Training Package or Accredited Course
- Selected elective units must be relevant to job outcomes in Arboriculture and must be chosen to ensure the integrity of the qualification at AQF level 3

Group D

Unit Code	Unit Title
AHCARB206	<p>Operate and maintain stump grinding machines*</p> <p><i>AHCARB210 Work effectively in the arboriculture industry</i></p> <p><i>HLTAID003 Provide first aid</i></p>

AHCARB301	Implement a tree maintenance program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport, handle and store chemicals</i>
AHCARB308	Install cable and bracing
AHCARB309	Implement a tree protection program
AHCLSC310	Implement a tree transplanting program
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals
AHCNAR306	Conduct photography for fieldwork
AHCPMG301	Control weeds
FWPFGM3213	Fall trees manually (advanced)
FWPCOT2236	Fall trees manually (basic)
FWPHAR2206	Operate a mobile chipper/mulcher
RIIWHS205D	Control traffic with stop-slow bat
CPCCDO3011A	Perform dogging
CPCCCM2010B	Work safely at heights
UETTDRRF03B	Perform EWP rescue
UETTDRRF08B	Perform EWP controlled descent escape
HLTAID001	Provide cardiopulmonary resuscitation

Qualification Mapping Information

This qualification is not equivalent to AHC30810 Certificate III in Arboriculture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC30916 Certificate III in Landscape Construction

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a general vocational outcome in landscape construction. The landscaping industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 11
- Elective Units = 4

Core Units

Unit Code	Unit Title
AHCDRG301	Install drainage systems
AHCLSC301	Set out site for construction works
AHCLSC302	Construct landscape features using concrete
AHCLSC303	Construct brick and/or block structures and features
AHCLSC305	Construct stone structures and features

AHCLSC306	Implement a paving project
AHCLSC307	Implement a retaining wall project
AHCPCM302	Provide information on plants and their culture
AHCPGD301	Implement a plant establishment program
AHCSOL303	Implement soil improvements for garden and turf areas
AHCWHS301	Contribute to work health and safety processes

Elective Units

- 4 units may be selected from units aligned to Certificates II, III or IV in this training package or from any other currently endorsed training package or accredited course. Selected units must be relevant to job outcomes in landscaping and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Qualification Mapping Information

This qualification is equivalent to AHC30710 Certificate III in Landscape Construction.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC31016 Certificate III in Parks and Gardens

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a vocational outcome in parks and gardens. The parks and gardens industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 5
- Elective Units = 11

Core Units

Unit Code	Unit Title
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders
AHCPCM301	Implement a plant nutrition program
AHCPCM302	Provide information on plants and their culture
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 7 units from the list below
- 4 units aligned to AQF levels 2, 3 or 4 may be selected from this list or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in parks and gardens and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Unit Code	Unit Title
AHCARB301	Implement a tree maintenance program
AHCPCM304	Report on health and condition of trees
AHCARB308	Install cable and bracing
AHCARB309	Implement a tree protection program
FWPFGM3213	Fall trees manually (advanced)
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals
AHCIRG331	Install pressurised irrigation systems
AHCIRG332	Operate pressurised irrigation systems
AHCIRG333	Maintain pressurised irrigation systems
AHCIRG303	Measure irrigation delivery system performance
AHCIRG306	Troubleshoot irrigation systems
AHCLSC301	Set out site for construction works
AHCLSC302	Construct landscape features using concrete
AHCLSC303	Construct brick and or block structures and features
AHCLSC304	Erect timber structures and features
AHCLSC305	Construct stone structures and features
AHCLSC306	Implement a paving project
AHCLSC307	Implement a retaining wall project

AHCLSC308	Install metal structures and features
AHCLSC309	Install water features
AHCLSC310	Implement a tree transplanting program
AHCMOM304	Operate machinery and equipment
AHCNAR301	Maintain natural areas
AHCNAR303	Implement revegetation works
AHCPGD301	Implement a plant establishment program
AHCPGD302	Plan and maintain plant displays
AHCPGD303	Perform specialist amenity pruning
AHCPGD304	Implement a landscape maintenance program
AHCPGD305	Conduct operational inspection of park facilities
AHCPGD306	Implement a maintenance program for an aquatic environment
AHCPCM303	Identify plant specimens
AHCSOL301	Prepare growing media
AHCSOL303	Implement soil improvements for garden and turf areas
AHCTRF301	Construct turf playing surfaces
AHCTRF302	Establish turf
AHCTRF303	Implement a grassed area maintenance program
AHCTRF304	Monitor turf health
AHCTRF305	Renovate sports turf
AHCWRK309	Apply environmentally sustainable work practices

Qualification Mapping Information

This qualification is equivalent to AHC31010 Certificate III in Parks and Gardens.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC31116 Certificate III in Production Nursery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a general vocational outcome for a nursery person working in a production nursery. The nursery industry expects this qualification to be achieved to meet job outcomes at this level.

Job roles and titles covered by this qualification may include:

- production nursery tradesperson

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 11
- Elective Units = 5

Core Units

Unit Code	Unit Title
AHCBIO305	Monitor and review biosecurity measures
AHCCHM303	Prepare and apply chemicals

AHCCHM304	Transport and store chemicals
AHCIRG306	Troubleshoot irrigation systems
AHCNSY301	Maintain nursery plants
AHCNSY306	Implement a propagation plan
AHCPCM301	Implement a plant nutrition program
AHCPCM302	Provide information on plants and their culture
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 3 units from list below
- 2 unit may be selected from may be selected from units aligned to Certificates II, III or IV in this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in nursery production and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Unit Code	Unit Title
AHCBER301	Work effectively in an emergency disease or plant pest response
AHCBIO302	Identify and report unusual disease or plant pest signs
AHCBER303	Carry out emergency disease or plant pest control procedures at infected premises
AHCBER304	Carry out movement and security procedures
AHCBUS404	Operate within a budget framework
AHCCHM302	Fumigate soil <i>AHCCHM303 Prepare and apply chemicals</i>

	<i>AHCCHM304 Transport and store chemicals</i>
AHCHYD301	Implement a maintenance program for hydroponic systems
AHCHYD302	Install hydroponic systems
AHCIRG303	Measure irrigation delivery system performance
AHCIRG331	Install pressurised irrigation systems
AHCIRG332	Operate pressurised irrigation systems
AHCIRG333	Maintain pressurised irrigation systems
AHCMER301	Process customer complaints
AHCMER303	Sell products and services
AHCMOM304	Operate machinery and equipment
AHCNSY302	Receive and dispatch nursery products
AHCNSY303	Install and maintain plant displays
AHCNSY304	Deliver and promote sales of plants
AHCNSY305	Prepare specialised plants
AHCNSY307	Operate fertigation equipment
AHCSOL202	Assist with soil or growing media sampling and testing
AHCSOL301	Prepare growing media
AHCSOL401	Sample soils and interpret results
AHCWAT301	Monitor and operate water treatment processes
AHCWRK303	Respond to emergencies

AHCWRK305	Coordinate work site activities
AHCWRK309	Apply environmentally sustainable work practices
SIRRINV002	Control stock
SIRXMER201	Merchandise products
SIRRMER001	Produce visual merchandise displays
SIRXPDK001	Advise on products and services

Qualification Mapping Information

This qualification is equivalent to AHC31110 Certificate III in Production Nursery.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC31216 Certificate III in Retail Nursery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a general vocational outcome for a retail nursery or garden centre sales assistant. The nursery industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 9
- Elective Units = 6

Core Units

Unit Code	Unit Title
AHCNSY301	Maintain nursery plants
AHCNSY302	Receive and dispatch nursery products
AHCNSY303	Install and maintain plant displays
AHCPCM302	Provide information on plants and their culture
AHCPCM303	Identify plant specimens

AHCPMG302	Control plant pests, diseases and disorders
AHCWHS301	Contribute to work health and safety processes
SIRXCEG001	Engage the customer
SIRRMER003	Coordinate visual merchandising activities

Elective Units

- Select 3 units from list below
- 3 units may be selected from this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in retail nursery work and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Unit Code	Unit Title
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals
AHCMER301	Process customer complaints
AHCMER302	Provide advice on hardware products
AHCMER303	Sell products and services
BSBCUS301	Deliver and monitor a service to customers
BSBPRO301	Recommend products and services
BSBSLS402A	Identify sales prospects
SIRXADM002A	Coordinate retail office
SIRRINV002	Control stock
SIRXINV004A	Buy merchandise
SIRXMER201	Merchandise products
SIRRMER001	Produce visual merchandise displays
SIRXMER406	Monitor in-store visual merchandising display

SIRXRSK002	Maintain store security
SIRXPDK001	Advise on products and services
SIRXSLS303	Build relationships with customers
AHCNSY304	Deliver and promote sales of plants
AHCPMG301	Control weeds
AHCPCM301	Implement a plant nutrition program
AHCWRK303	Respond to emergencies
AHCWRK305	Coordinate work site activities
AHCWRK309	Apply environmentally sustainable work practices

Qualification Mapping Information

This qualification is equivalent to AHC31210 Certificate III in Retail Nursery.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC31316 Certificate III in Sports Turf Management

Modification History

NoRelease	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a general vocational outcome in greenkeeping. The sports turf industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 11
- Elective Units = 5

Core Units

Unit Code	Unit Title
AHCIRG331	Install pressurised irrigation systems
AHCMOM304	Operate machinery and equipment
AHCPCM301	Implement a plant nutrition program
AHCPCM302	Provide information on plants and their culture
AHCPMG301	Control weeds

AHCPMG302	Control plant pests, diseases and disorders
AHCTRF301	Construct turf playing surfaces
AHCTRF302	Establish turf
AHCTRF303	Implement a grassed area maintenance program
AHCTRF305	Renovate sports turf
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 3 units from the list below
- 2 units may be selected from the list below or from units aligned to AQF levels 2, 3 or 4 from this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in sports turf management and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Unit Code	Unit Title
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals
AHCDRG301	Install drainage systems
AHCIRG306	Troubleshoot irrigation systems
AHCIRG332	Operate pressurised irrigation systems
AHCIRG333	Maintain pressurised irrigation systems
AHCSOL303	Implement soil improvements for garden and turf areas
AHCSOL401	Sample soils and interpret results
AHCWRK305	Coordinate work site activities
AHCWRK309	Apply environmentally sustainable work practices

Qualification Mapping Information

This qualification is equivalent to AHC31310 Certificate III in Sports Turf Management.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC31416 Certificate III in Conservation and Land Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a general vocational outcome in the conservation and land management industry.

The qualification enables individuals to select an Indigenous land management, lands, parks and wildlife or natural area management context as a job focus or a mix of these.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 2
- Elective Units = 14

Core Units

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Work

Unit Code	Unit Title
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AHCWRK309	Apply environmentally sustainable work practices
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Elective Units

- Select at least 4 units from Group A
- Select at least six units from Group A or Group B
- A maximum of 4 units may be selected from the elective lists of Certificates II, III or IV of this or any other endorsed Training Package or Accredited Course.
Selected units must be relevant to job outcomes in conservation and land management and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Group A

Indigenous land management

Unit Code	Unit Title
AHCILM302	Provide appropriate information on cultural knowledge
AHCILM305	Work with an Aboriginal Community or organisation
AHCILM308	Identify traditional customs and land rights for an Indigenous Community
SITTGDE001	Interpret aspects of local Australian Indigenous culture

Natural area restoration

Unit Code	Unit Title
AHCNAR301	Maintain natural areas
AHCNAR302	Collect and preserve biological samples
AHCNAR303	Implement revegetation works
AHCNAR304	Undertake direct seeding
AHCNAR305	Collect native seed

Lands, parks and wildlife

Unit Code	Unit Title
AHCLPW301	Supervise park visitor activities
AHCLPW303	Construct access tracks
AHCLPW304	Carry out inspection of designated area
AHCLPW305	Perform diving for scientific purposes
AHCLPW306	Undertake sampling and testing of water
PUAFIR204B	Respond to wildfire* <i>PUAFIR215 Prevent injury</i>
PUAFIR303B	Suppress wildfire* <i>PUAFIR204B Respond to wildfire</i>
SITTGDE002	Work as a guide

Fauna

Unit Code	Unit Title
AHCFAU301	Respond to wildlife emergencies

Infrastructure

Unit Code	Unit Title
AHCINF303	Plan and construct conventional fencing

Pest management

Unit Code	Unit Title
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders
AHCPMG305	Survey pests
AHCPMG306	Determine pest control techniques

AHCPMG307	Apply animal trapping techniques
AHCPMG308	Implement pest management strategies
AHCPMG310	Prepare, monitor and maintain biological agents
AHCPMG311	Use firearms for pest control activities from aircraft

Work

Unit Code	Unit Title
AHCWRK311	Conduct site inspections
FWPCOT3202	Navigate in remote or trackless areas

Group B

Animal care and management

Unit Code	Unit Title
ACMGAS305A	Rescue animals and apply basic first aid

Biosecurity

Unit Code	Unit Title
AHCBIO302	Identify and report unusual disease or plant pest signs

Business

Unit Code	Unit Title
BSBITU306	Design and produce business documents

Chemicals

Unit Code	Unit Title
AHCCHM303	Prepare and apply chemicals

AHCCHM304	Transport and store chemicals
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Fauna

Unit Code	Unit Title
AHCFAU201	Recognise fauna

Infrastructure

Unit Code	Unit Title
AHCINF301	Implement property improvement, construction and repair

Landscape

Unit Code	Unit Title
AHCLSC301	Set out site for construction works
AHCLSC304	Erect timber structures and features

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM301	Coordinate machinery and equipment maintenance and repair
AHCMOM302	Perform machinery maintenance
AHCMOM304	Operate machinery and equipment
AHCMOM305	Operate specialised machinery and equipment
AHCMOM314	Transport machinery
AHCMOM315	Operate chemical application machinery and equipment

Natural area restoration

Unit Code	Unit Title
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AHCNAR306	Conduct photography for fieldwork
AHCNAR307	Read and interpret maps

Parks and gardens

Unit Code	Unit Title
AHCPGD301	Implement a plant establishment program
AHCPGD304	Implement a landscape maintenance program
AHCPGD305	Conduct operational inspection of park facilities
AHCPGD306	Implement a maintenance program for an aquatic environment

Pest management

Unit Code	Unit Title
AHCPMG411	Ensure compliance with pest legislation

Plants

Unit Code	Unit Title
AHCPCM302	Provide information on plants and their culture
AHCPCM303	Identify plant specimens

Seed processing

Unit Code	Unit Title
AHCSPO308	Sample seed before and after processing

Soil and water conservation

Unit Code	Unit Title
AHCSAW301	Construct conservation earthworks

AHCSAW302	Implement erosion and sediment control measures
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Work

Unit Code	Unit Title
AHCWRK203	Operate in isolated and remote situations
AHCWRK303	Respond to emergencies
AHCWRK304	Respond to rescue incidents
AHCWRK305	Coordinate work site activities
AHCWRK310	Provide on-job training support
PUAEMR026	Treat operational risk
PUAEMR027	Assess operational risk

Qualification Mapping Information

This qualification is equivalent to AHC31410 Certificate III in Conservation and Land Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC31516 Certificate III in Indigenous Land Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a vocational outcome required for an Indigenous land worker operating within Aboriginal Communities, following Community protocols and using a mix of traditional and contemporary land management strategies.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 2
- Elective Units = 14

Core Units

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Work

Unit Code	Unit Title
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AHCWRK309	Apply environmentally sustainable work practices
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Elective Units

- Select 4 units from Group A
- Select 7 units from Group A or Group B
- A maximum of 3 units may be selected from the elective lists of Certificate II, III or IV of this or any other endorsed Training Package or Accredited Course.
Selected units must be relevant to job outcomes in Indigenous land management and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Group A

Indigenous land management

Unit Code	Unit Title
AHCILM302	Provide appropriate information on cultural knowledge
AHCILM305	Work with an Aboriginal Community or organisation
AHCILM306	Follow Aboriginal cultural protocols
AHCILM308	Identify traditional customs and land rights for an Indigenous Community
SITTGDE001	Interpret aspects of local Australian Indigenous culture

Fauna

Unit Code	Unit Title
AHCFAU301	Respond to wildlife emergencies
LGAREGS305A	Undertake animal or reptile control duties

Lands, parks and wildlife

Unit Code	Unit Title
SITTGDE002	Work as a guide

Natural area restoration

Unit Code	Unit Title
AHCNAR201	Carry out natural area restoration works
AHCNAR301	Maintain natural areas
AHCNAR303	Implement revegetation works
AHCNAR305	Collect native seed
FWPFGM3202	Extract seed

Pest management

Unit Code	Unit Title
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders

Group B**Animal care and management**

Unit Code	Unit Title
ACMGAS305A	Rescue animals and apply basic first aid

Business

Unit Code	Unit Title
BSBITU306	Design and produce business documents

Chemicals

Unit Code	Unit Title
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals

Infrastructure

Unit Code	Unit Title
AHCINF301	Implement property improvement, construction and repair

Landscaping

Unit Code	Unit Title
AHCLSC304	Erect timber structures and features

Lands, parks and wildlife

Unit Code	Unit Title
AHCLPW301	Supervise park visitor activities
AHCLPW303	Construct access tracks
AHCLPW304	Carry out inspection of designated area
AHCLPW305	Perform diving for scientific purposes
AHCLPW306	Undertake sampling and testing of water
PUAFIR204B	Respond to wildfire* <i>PUAFIR215 Prevent injury</i>
PUAFIR303B	Suppress wildfire* <i>PUAFIR204B Respond to wildfire</i>

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM305	Operate specialised machinery and equipment
AHCMOM315	Operate chemical application machinery and equipment
FWPCOT3259	Operate a four wheel drive on unsealed roads

Natural area restoration

Unit Code	Unit Title
AHCNAR306	Conduct photography for fieldwork
AHCNAR307	Read and interpret maps

Plants

Unit Code	Unit Title
AHCPCM301	Implement a plant nutrition program
AHCPCM302	Provide information on plants and their culture
AHCPCM303	Identify plant specimens

Vertebrate management

Unit Code	Unit Title
AHCPMG308	Implement pest management strategies
AHCPMG305	Survey pests
AHCPMG307	Apply animal trapping techniques

Work

Unit Code	Unit Title
AHCWRK303	Respond to emergencies
AHCWRK304	Respond to rescue incidents
AHCWRK305	Coordinate work site activities

Qualification Mapping Information

This qualification is equivalent to AHC31510 Certificate III in Indigenous Land Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC31616 Certificate III in Lands, Parks and Wildlife

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the roles of national parks and wildlife workers who are responsible for conducting a number of functions focusing on the maintenance of natural environments, park infrastructure and services, and stakeholder management. National parks workers will carry out a number of duties to protect, enhance and manage natural environments, recreational and cultural assets. National parks workers will work autonomously, as well as under supervision of a park ranger.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 2
- Elective Units = 14

Core Units

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Work

Unit Code	Unit Title
AHCWRK309	Apply environmentally sustainable work practices

Elective Units

- Select at least 4 units from Group A
- Select at least 7 units from Group A or Group B
- A maximum of 3 units may be selected from the elective list of Certificates II, III or IV of this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in lands, parks and wildlife and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Group A

Lands, parks and wildlife

Unit Code	Unit Title
AHCLPW301	Supervise park visitor activities
AHCLPW303	Construct access tracks
AHCLPW304	Carry out inspection of designated area
AHCLPW305	Perform diving for scientific purposes
AHCLPW306	Undertake sampling and testing of water
PUAFIR204B	Respond to wildfire* <i>PUAFIR201B Prevent injury</i>
PUAFIR303B	Suppress wildfire* <i>PUAFIR204B Respond to wildfire</i>
SITTGDE002	Work as a guide

Indigenous land management

Unit Code	Unit Title
AHCILM305	Work with an Aboriginal Community or organisation

SITTGDE001	Interpret aspects of local Australian Indigenous culture
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Pest management

Unit Code	Unit Title
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders

Plants

Unit Code	Unit Title
AHCPCM302	Provide information on plants and their culture
AHCPCM303	Identify plant specimens

Group B

Animal care management

Unit Code	Unit Title
ACMGAS305A	Rescue animals and apply basic first aid

Biosecurity

Unit Code	Unit Title
AHCBIO302	Identify and report unusual disease or plant pest signs

Fauna

Unit Code	Unit Title
AHCFAU301	Respond to wildlife emergencies
LGAREGS305A	Undertake animal or reptile control duties

Natural area restoration

Unit Code	Unit Title
AHCNAR301	Maintain natural areas
AHCNAR302	Collect and preserve biological samples
AHCNAR303	Implement revegetation works
AHCNAR304	Undertake direct seeding
AHCNAR306	Conduct photography for fieldwork
AHCNAR307	Read and interpret maps
FWPFGM3201	Manage seed collection

Pest management

Unit Code	Unit Title
AHCPMG310	Prepare, monitor and maintain biological agents
AHCPMG411	Ensure compliance with pest legislation

Chemicals

Unit Code	Unit Title
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM315	Operate chemical application machinery and equipment
AHCMOM212	Operate quad bikes
FWPCOT3259	Operate a four wheel drive on unsealed roads

Soils and media

Unit Code	Unit Title
AHCSOL202	Assist with soil or growing media sampling and testing
AHCSOL401	Sample soils and interpret results

Soil and water conservation

Unit Code	Unit Title
AHCSAW302	Implement erosion and sediment control measures

Work

Unit Code	Unit Title
AHCWRK303	Respond to emergencies
AHCWRK304	Respond to rescue incidents
AHCWRK305	Coordinate work site activities
AHCWRK310	Provide on-job training support
AHCWRK311	Conduct site inspections

Qualification Mapping Information

This qualification is equivalent to AHC31610 Certificate III in Lands, Parks and Wildlife.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC31716 Certificate III in Natural Area Restoration

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides vocational outcomes for workers in the conservation and land management industry undertaking natural area restoration work such as revegetation and land rehabilitation.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 2
- Elective Units =14

Core Units

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Work

Unit Code	Unit Title
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AHCWRK309	Apply environmentally sustainable work practices
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Elective Units

- Select at least 4 units from Group A
- Select at least 7 units from Group A or Group B
- A maximum of 3 units may be selected from the elective lists of Certificates II, III or IV of this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in natural area restoration and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Group A

Natural area restoration

Unit Code	Unit Title
AHCNAR201	Carry out natural area restoration works
AHCNAR301	Maintain natural areas
AHCNAR302	Collect and preserve biological samples
AHCNAR303	Implement revegetation works
AHCNAR304	Undertake direct seeding
AHCNAR305	Collect native seed
AHCNAR306	Conduct photography for fieldwork
FWPFGM3202	Extract seed

Pest management

Unit Code	Unit Title
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders

Plants

Unit Code	Unit Title
AHCPCM302	Provide information on plants and their culture
AHCPCM303	Identify plant specimens

Group B

Parks and gardens

Unit Code	Unit Title
AHCPGD301	Implement a plant establishment program

Chemicals

Unit Code	Unit Title
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM315	Operate chemical application machinery and equipment
AHCMOM212	Operate quad bikes

Soils and media

Unit Code	Unit Title
AHCSOL202	Assist with soil or growing media sampling and testing
AHCSOL401	Sample soils and interpret results

Soil and water conservation

Unit Code	Unit Title
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AHCSAW301	Construct conservation earthworks
AHCSAW302	Implement erosion and sediment control measures

Work

Unit Code	Unit Title
AHCWRK203	Operate in isolated and remote situations
AHCWRK303	Respond to emergencies
AHCWRK304	Respond to rescue incidents
AHCWRK305	Coordinate work site activities
AHCWRK311	Conduct site inspections
AHCNAR307	Read and interpret maps
FWPCOT3202	Navigate in remote or trackless areas
FWPCOT3259	Operate four wheel drive on unsealed roads

Qualification Mapping Information

This qualification is equivalent to AHC31710 Certificate III in Natural Area Restoration.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC32016 Certificate III in Beekeeping

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a vocational outcome in bee keeping.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 12
- Elective Units = 4

Core Units

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes
AHCBEK301	Manage honey bee swarms
AHCBEK304	Remove a honey crop from a hive
AHCBEK305	Extract honey
AHCWRK306	Comply with industry quality assurance requirements
AHCBEK306	Manage pests and disease within a honey bee colony

AHCBEK202	Use a bee smoker
AHCBEK203	Open and reassemble a beehive
AHBEK204	Construct and repair beehives
AHCBEK302	Manipulate honey bee brood
AHCBEK303	Re-queen a honey colony
AHCBEK405	Select and establish an apiary site

Elective Units

- 2 units must be selected from the list below
- 2 units must come from the list below or any other currently endorsed training package or accredited course. Selected units must be relevant to job outcomes in the beekeeping industry and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Unit Code	Unit Title
AHCBEK201	Support beekeeping work
AHCBEK401	Collect and store propolis
AHCBEK402	Perform queen bee artificial insemination
AHCBEK403	Produce and harvest royal jelly
AHCBEK404	Provide bee pollination services
AHCBEK406	Trap and store pollen
AHCBEK407	Rear queen bees
FDFFS3001A	Monitor the implementation of quality and food safety programs* <i>FDFFS2001A Implement the food safety program and procedures</i>
FDFFS2001A	Implement the food safety program and procedures
FDFGPS2011A	Operate a creamed honey manufacture process

FDFOP2013A	Apply sampling procedures
FDFOP2003A	Clean equipment in place
FDFOP2004A	Clean and sanitise equipment
FDFOP2023A	Operate a packaging process
FDFTEC3001A	Participate in a HACCP team* <i>FDFFS2001A Implement the food safety program and procedures</i>
AHCWRK303	Respond to emergencies
AHCWRK305	Coordinate work site activities
AHCWRK308	Handle bulk materials in storage area
TLILIC2001	Licence to operate a forklift truck

Qualification Mapping Information

This qualification is equivalent to AHC32010 Certificate III in Beekeeping.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC32116 Certificate III in Commercial Seed Processing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the roles of workers in commercial seed cleaning, grading and processing plants.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 9

- Core Units = 5
- Elective Units = 4

Core Units

Unit Code	Unit Title
AHCSPO301	Operate a screen cleaner
AHCSPO302	Operate an indent cylinder
AHCSPO307	Handle, package and store commercial quantities of seed
AHCSPO308	Sample seed before and after processing
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 4 units from list below
- 1 unit may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in commercial seed processing and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Unit Code	Unit Title
AHCAGB301	Keep production records for a primary production business
AHCSPO303	Operate a gravity table
AHCSPO304	Operate seed modification machinery
AHCSPO305	Operate seed treatment machinery
AHCSPO306	Operate specialised seed processing machinery
AHCWRK309	Apply environmentally sustainable work practices
TLILIC2001A	Licence to operate a forklift truck
RIIWHS202D	Enter and work in confined spaces
AHCCHM305	Conduct manual fumigation of vertebrate and invertebrate pests* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>

Qualification Mapping Information

This qualification is equivalent to AHC32113 Certificate III in Commercial Seed Processing.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC32216 Certificate III in Commercial Composting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a general vocational outcome for a person working in a commercial composting business. The composting industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 1
- Elective Units = 9

Core Units

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 5 units from Group A
- Select 2 units from Group A or B

- 2 units may be selected from this or any other endorsed Training Package or Accredited Course. Selected units must be relevant to job outcomes in commercial composting and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Group A

Unit Code	Unit Title
AHCCOM301	Operate compost processing plant, machinery and equipment
AHCCOM302	Dispatch materials and composted product
AHCCOM303	Operate a compost bagging process
RIIMPO304D	Conduct wheel loader operations
AHCCOM401	Develop a composting recipe
AHCCOM402	Plan and schedule compost production
AHCWRK305	Coordinate work site activities
AHCWRK306	Comply with industry quality assurance requirements
AHCWRK308	Handle bulk materials in storage area

Group B

Unit Code	Unit Title
AHCCOM201	Assess and receive raw materials for composting
AHCCOM202	Recognise and respond to fire emergencies on a composting site
AHCCOM203	Recognise raw materials, production processes and products on a composting site
AHCCOM501	Identify and secure raw materials supply for compost production
AHCCHM301	Use application equipment to apply fumigant to confined spaces* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM302	Fumigate soil* <i>AHCCHM303 Prepare and apply chemicals</i>

	<i>AHCCHM304 Transport and store chemicals</i>
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals
AHCMOM301	Coordinate machinery and equipment maintenance and repair
AHCMOM302	Perform machinery maintenance
AHCMOM304	Operate machinery and equipment
AHCMOM305	Operate specialised machinery and equipment
AHCMOM315	Operate chemical application machinery and equipment

Qualification Mapping Information

This qualification is equivalent to AHC32210 Certificate III in Commercial Composting.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC32316 Certificate III in Conservation Earthworks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification relates to those individuals constructing earthworks on rural properties and rural land. They perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 3
- Elective Units = 7

Core Units

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Soil and water conservation

Unit Code	Unit Title
AHCSAW301	Construct conservation earthworks

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM302	Perform machinery maintenance

Elective Units

- Select at least 4 units from the elective list
- 3 units may be selected from the elective list of any Certificate II, III or IV of this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in conservation earthworks and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Lands, parks and wildlife

Unit Code	Unit Title
AHCLPW303	Construct access tracks

Soil and water conservation

Unit Code	Unit Title
AHCSAW302	Implement erosion and sediment control measures

Natural area restoration

Unit Code	Unit Title
AHCNAR303	Implement revegetation works

Machinery operation and maintenance

Unit Code	Unit Title
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AHCMOM304	Operate machinery and equipment
AHCMOM314	Transport machinery

Work

Unit Code	Unit Title
AHCWRK303	Respond to emergencies
AHCWRK304	Respond to rescue incidents
AHCWRK311	Conduct site inspections

Qualification Mapping Information

This qualification is equivalent to AHC32310 Certificate III in Conservation Earthworks.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC32416 Certificate III in Irrigation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the skills and knowledge required to become installation or operations technicians within the irrigation industry.

It applies to skilled workers who carry out installation and operations job roles in the irrigation servicing, horticulture and agriculture industries.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication. However, an individual Unit of Competency may specify relevant licensing, legislative or regulatory requirements. Specific determination should be sought through the relevant State or Territory.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 14

- Core Units = 2
- Elective Units = 12

Core Units

Unit Code	Unit Title
AHCIRG308	Monitor soils under irrigation
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 6 units from Group A
- Select 4 units from Group A or B
- 2 units may be selected this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in irrigation and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Unit Code	Unit Title
AHCIRG306	Troubleshoot irrigation systems
AHCIRG309	Install irrigation pumps
AHCIRG310	Operate and maintain irrigation pumping systems
AHCIRG315	Interpret irrigation plans and drawings
AHCIRG325	Operate irrigation technology
AHCIRG326	Operate irrigation injection equipment
AHCIRG327	Implement an irrigation schedule
AHCIRG331	Install pressurised irrigation systems
AHCIRG332	Operate pressurised irrigation systems
AHCIRG333	Maintain pressurised irrigation systems
AHCIRG335	Operate and maintain moving irrigation system
AHCIRG334	Operate and maintain gravity fed irrigation systems
AHCDRG304	Maintain and repair irrigation drainage systems
AHCDRG301	Install drainage systems
AHCINF304	Install and terminate extra low voltage wiring systems
AHCWRK305	Coordinate worksite activities

Group B

Unit Code	Unit Title
AHCDRG302	Measure drainage system performance
AHCDRG303	Troubleshoot drainage systems
AHCIRG303	Measure irrigation delivery system performance
AHCMER304	Recommend irrigation products and services
AHCLPW306	Undertake sampling and testing of water
AHCWRK405	Implement and monitor environmentally sustainable work practices
CPCPIG2021A	Design domestic urban irrigation systems
CPCPWT3027A	Connect irrigation systems from drinking water supply * <i>CPCPCM2043A Carry out WHS requirements</i>
NWPIRR014	Install meters for rural water supplies
NWPIRR022	Maintain meters for rural water supplies
NWPIRR024	Monitor and conduct maintenance on flow control and metering devices
NWPIRR042	Monitor and schedule water deliveries
NWPTRT062	Operate and control reclaimed water irrigation

Qualification Mapping Information

This qualification is equivalent to AHC32412 Certificate III in Irrigation.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC32516 Certificate III in Aboriginal Sites Work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

The qualification enables individuals to undertake work associated with inspecting, documenting and maintaining Aboriginal cultural and heritage sites.

The qualification enables individuals to operate under recognised, appropriate cultural supervision to undertake work associated with inspecting, documenting and maintaining Aboriginal cultural and heritage sites.

There are no entry requirements for this qualification, although it is recommended that participants undertaking this qualification seek the endorsement of their local Aboriginal Community and local Aboriginal leadership when enrolling in this qualification.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 9
- Elective Units = 6

Core Units

Unit Code	Unit Title
AHCASW301	Protect places of Aboriginal cultural significance* <i>AHCILM306 Follow Aboriginal cultural protocols</i>

AHCASW302	Relate Aboriginal culture to sites work* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW303	Identify and record Aboriginal sites, objects and cultural landscapes* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW308	Apply cultural significance to Aboriginal sites and landscapes* <i>AHCASW302 Relate Aboriginal culture to sites work**</i> <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW310	Move and store Aboriginal cultural material* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW312	Maintain an Aboriginal cultural site* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW313	Apply knowledge of relevant legislation to Aboriginal sites work
AHCILM306	Follow Aboriginal cultural protocols
AHCWHS301	Contribute to work health and safety processes

Electives

- Select 4 units from Group A
- Select 2 additional units from Group A or Group B or from the elective list of any Certificate II, III or IV in this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in Aboriginal sites work and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Group A

Unit Code	Unit Title
AHCASW305	Work with Aboriginal ceremonial secret sacred materials* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW306	Use technology in Aboriginal sites work* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW307	Support the documentation of Aboriginal cultural landscapes*

	<i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW309	Interpret Aboriginal cultural landscape* <i>AHCASW302 Relate Aboriginal culture to sites work</i> <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCILM305	Work with an Aboriginal Community or organisation* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCILM307	Implement Aboriginal cultural burning practices* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCILM510	Plan for successful cultural practice at work * <i>AHCILM306 Follow Aboriginal cultural protocols</i>

Group B

Unit Code	Unit Title
AHCASW304	Identify Indigenous culturally significant plants* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW501	Survey and report on Aboriginal cultural sites* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals
AHCFAU301	Respond to wildlife emergencies
AHCILM201	Maintain cultural places
AHCILM203	Record information about Country
AHCILM302	Provide appropriate information on cultural knowledge
AHCILM308	Identify traditional customs and land rights for an Indigenous Community
AHCILM404	Record and document Community history
AHCINF301	Implement property improvement, construction and repair
AHCLPW301	Supervise park visitor activities

AHCLPW303	Construct access tracks
AHCLPW304	Carry out inspection of designated area
AHCLPW305	Perform diving for scientific purposes
AHCLPW306	Undertake sampling and testing of water
AHCLSC304	Erect timber structures and features
AHCMOM305	Operate specialised machinery and equipment
AHCMOM315	Operate chemical application machinery and equipment
AHCNAR201	Carry out natural area restoration works
AHCNAR301	Maintain natural areas
AHCNAR303	Implement revegetation works
AHCNAR305	Collect native seed
AHCNAR306	Conduct photography for fieldwork
AHCNAR307	Read and interpret maps
AHCPCM301	Implement a plant nutrition program
AHCPCM302	Provide information on plants and their culture
AHCPCM303	Identify plant specimens
AHCPMG301	Control weeds
AHCPMG302	Control pests and diseases in plants
AHCPMG305	Survey pests
AHCPMG307	Apply animal trapping techniques
AHCPMG308	Implement pest management strategies
AHCWRK303	Respond to emergencies
AHCWRK304	Respond to rescue incidents
AHCWRK305	Coordinate work site activities
BSBITU306	Design and produce business documents

CUAATS504	Work with Aboriginal and Torres Strait Islander cultural material
CUACNM301	Move and store collection material
BSBLIB502	Manage the development of collections
BSBLIB602	Develop and monitor procedures for the movement and storage of collection material
CULMS002B	Research and evaluate Aboriginal or Torres Strait Islander cultural material
CULMS010B	Contribute to the preservation of cultural material
FPICOT3259	Operate a four wheel drive on unsealed roads
FPIFGM3202B	Extract seed
LGAREGS305A	Undertake animal or reptile control duties
PUAFIR204B	Respond to wildfire* <i>PUAFIR215 Prevent injury</i>
PUAFIR303B	Suppress wildfire* <i>PUAFIR204B Respond to wildfire</i>
SITTGDE001	Interpret aspects of local Australian Indigenous culture
SITTGDE002	Work as a guide
SITTGDE007	Research and share general information on Australian Indigenous cultures
SITTGDE008	Prepare specialised interpretive content on flora, fauna and landscape
SITTGDE010	Prepare specialised interpretive content on cultural and heritage environments
SITTPPD002	Develop interpretive activities
SITXCOM004	Address protocol requirements

Qualification Mapping Information

This qualification is equivalent to AHC32513 Aboriginal-sites Work.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC32616 Certificate III in Rural Machinery Operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a general vocational outcome in the operation and maintenance of agricultural plant.

Industry expects individuals with this qualification to perform tasks involving a broad range of skills applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.

This qualification is suitable for an Australian Apprenticeship.

Job roles vary across different industry sectors and include:

- Agricultural plant operator/contractor

Some machinery may require licences or tickets to be operated in some states and territories. Specific determination should be sought through the relevant State or Territory.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 6
- Elective Units = 10

Core Units

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM301	Coordinate machinery and equipment maintenance and repair

AHCMOM302	Perform machinery maintenance
AHCMOM304	Operate machinery and equipment
AHCMOM305	Operate specialised machinery and equipment

Work

Unit Code	Unit Title
AHCWRK309	Apply environmentally sustainable work practices

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select at least 6 units from the elective list
 - 4 units aligned to AQF levels 2, 3, or 4 may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in machinery operations and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM211	Operate side by side utility vehicles
AHCMOM212	Operate quad bikes
AHCMOM306	Ground spread fertiliser and soil ameliorant
AHCMOM307	Operate a cane harvester
AHCMOM308	Operate broadacre and row crop harvest machinery and equipment
AHCMOM309	Operate broadacre sowing machinery and equipment
AHCMOM310	Operate land-forming machinery and equipment

AHCMOM311	Operate precision control technology
AHCMOM312	Operate row crop planting and seeding machinery and equipment
AHCMOM313	Operate mobile irrigation machinery and equipment
AHCMOM314	Transport machinery

Tools and equipment

Unit Code	Unit Title
MEM05004C	Perform routine oxy acetylene welding
MEM05007C	Perform manual heating and thermal cutting
MEM05012C	Perform routine manual metal arc welding

Work

Unit Code	Unit Title
AHCWRK303	Respond to emergencies
AHCWRK304	Respond to rescue incidents
AHCWRK305	Coordinate work site activities

Qualification Mapping Information

This qualification is not equivalent to AHC32610 Certificate III in Rural Machinery Operations.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC32716 Certificate III in Rural Merchandising

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a vocational outcome in rural merchandising.

Industry expects individuals with this qualification to perform tasks involving a broad range of skills applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.

This qualification is suitable for an Australian Apprenticeship.

Job roles vary across different industry sectors and include:

- Rural merchandiser
- Rural sales assistant

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 7
- Elective Units = 5

Core Units

Merchandising and sales

AHCMER303	Sell products and services
BSBCUS301	Deliver and monitor a service to customers

BSBPRO301	Recommend products and services
BSBSLS402A	Identify sales prospects
SIRXSLS303	Build relationships with customers

Work

AHCWRK309	Apply environmentally sustainable work practices
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Work health and safety

AHCWHS401	Maintain work health and safety processes
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Elective Units

- Select at least 3 units from the elective list
 - 2 units aligned to AQF levels 2, 3, or 4 may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in rural merchandising and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Business

Unit Code	Unit Title
AHCBUS301	Use hand held e-business tools

Machinery operation and maintenance

Unit Code	Unit Title
TLILIC2001	Licence to operate a forklift truck

Merchandising and sales

Unit Code	Unit Title
AHCMER301	Process customer complaints

AHCMER302	Provide advice on hardware products
AHCMER401	Coordinate customer service and networking activities
AHCMER402	Provide advice and sell machinery
AHCMER403	Provide advice and sell farm chemicals
AHCMER404	Provide advice on agronomic products
AHCMER405	Provide advice on livestock products
BSBSMB403	Market the small business
SIRXADM002A	Coordinate retail office
SIRRINV002	Control stock
SIRXINV004A	Buy merchandise
SIRRINV001 -	Receive and handle retail stock
SIRXMER004A	Manage merchandise and store presentation
SIRXMER201	Merchandise products
SIRRMER001	Produce visual merchandise displays
SIRRMER003	Coordinate visual merchandising activities
SIRXMER406	Monitor in-store visual merchandising display
SIRXMPR001A	Profile a retail market
SIRXRSK002	Maintain store security
SIRXPDK001	Advise on products and services

Work

Unit Code	Unit Title
AHCWRK306	Comply with industry quality assurance requirements
AHCWRK307	Develop and apply fertiliser and soil ameliorant product knowledge
AHCWRK308	Handle bulk materials in storage area

Qualification Mapping Information

This qualification is not equivalent to AHC32710 Certificate III in rural Merchandising.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC32816 Certificate III in Rural Operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in agriculture, horticulture and conservation land management and at least one and up to four other related industries.

Depending on the units selected individuals will be able to seek employment not only in rural industries but also other industry sectors, such as local government, tourism, hospitality, transport, construction, information technology and metals.

Industry expects individuals with this qualification to perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.

This qualification is suitable for an Australian Apprenticeship.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 16

- Core Units = 2
- Elective Units = 14

Core Units

Work

Unit Code	Unit Title
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AHCWRK309	Apply environmentally sustainable work practices
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Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select at least 6 units from Certificate III in in the AHC endorsed Training Package
- A maximum of 8 units aligned to AQF levels 2, 3, or 4 may be selected from up to 4 endorsed Training Packages or Accredited Courses
Selected units must be relevant to job outcomes in AgriFood and related industries and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Qualification Mapping Information

This qualification is not equivalent to AHC32810 Certificate III in Rural Operations.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC32916 Certificate III in Shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification covers occupational outcomes for shearing at the professional level. This requires a high standard of workmanship at a rate of at least 120 adult merino sheep or 140 adult crossbred sheep per day. The shearing industry expects this qualification to be achieved to meet job outcomes at this level.

This qualification is suitable for an Australian Apprenticeship.

Job titles relevant to this qualification include:

- Shearer - professional level

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

To be eligible to enrol in this qualification applicants must be able to demonstrate shearing skills and knowledge at Certificate II in Shearing level by completion of that certificate or by Recognition of Prior Learning.

Packaging Rules

Total number of units = 8

- Core Units = 8
- Elective Units = 0

Core Units

Livestock

Unit Code	Unit Title
AHCLSK331	Comply with industry animal welfare requirements

Shearing

Unit Code	Unit Title
AHCSHG204	Shear sheep to improver level
AHCSHG302	Prepare combs and cutters for machine shearing
AHCSHG303	Maintain and service shearing handpieces
AHCSHG304	Shear sheep to professional level
AHCSHG305	Maintain consistent shearing performance

Work

Unit Code	Unit Title
AHCWRK305	Coordinate work site activities

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Qualification Mapping Information

This qualification is not equivalent to AHC32910 Certificate III in Shearing.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC33016 Certificate III in Wool Clip Preparation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification is a specialist wool classing qualification for owner classers and enables them to apply for registration with AWEX Ltd as an Owner Classer.

This qualification is suitable for an Australian Apprenticeship.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 14

- Core Units = 14
- Elective Units = 0

Core Units

First Aid

Unit Code	Unit Title
HLTAID003	Provide first aid

Wool

Unit Code	Unit Title
AHCWOL301	Appraise wool using industry descriptions

AHCWOL303	Prepare wool based on its characteristics
AHCWOL304	Prepare fleece wool for classing
AHCWOL305	Prepare skirtings and oddments
AHCWOL306	Supervise clip preparation
AHCWOL307	Document a wool clip
AHCWOL308	Prepare facilities for shearing and crutching
AHCWOL310	Press wool for a clip
AHCWOL311	Perform shed duties
AHCWOL404	Establish work routines and manage wool harvesting and preparation staff
AHCWOL405	Class fleece wool

Work

Unit Code	Unit Title
AHCWRK306	Comply with industry quality assurance requirements

Work health and safety

Unit Code	Unit Title
AHCWHS401	Maintain work health and safety processes

Qualification Mapping Information

This unit is not equivalent to AHC33013 Certificate III in Wool Clip Preparation.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC33116 Certificate III in Advanced Wool Handling

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification focuses on a specialist wool handling role and allows individuals who are already working in the wool handling industry to develop further skills and knowledge in order to fulfil specialist roles in the organisation. The wool industry expects individuals with this qualification to perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.

This qualification is suitable for an Australian Apprenticeship.

Job roles and titles vary across different industry sectors. Possible job titles relevant to this qualification include:

- Shearing shed hands
- Wool handlers

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 9
- Elective Units = 1

Core Units

Livestock

Unit Code	Unit Title
AHCLSK217	Apply animal welfare principles to handling and husbandry of livestock

Wool

Unit Code	Unit Title
AHCWOL201	Pen sheep
AHCWOL203	Carry out wool pressing
AHCWOL304	Prepare fleece wool for classing
AHCWOL305	Prepare skirtings and oddments
AHCWOL308	Prepare facilities for shearing and crutching
AHCWOL311	Perform shed duties

Work

Unit Code	Unit Title
AHCWRK306	Comply with industry quality assurance requirements

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select at least 1 unit from the elective list

Wool

Unit Code	Unit Title
AHCWOL303	Prepare wool based on its characteristics

AHCWOL310	Press wool for a clip
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Qualification Mapping Information

This qualification is not equivalent to AHC33110 Certificate III in Advanced Wool handling.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC33216 Certificate III in Floriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides a vocational outcome in floriculture. The floriculture industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 1
- Elective Units = 14

Core Units

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 4 units from Group A
- Select 7 units from Group A or B

- 3 units may be selected from Group B or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in floriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Group A

Unit Code	Unit Title
AHCPCM301	Implement a plant nutrition program
AHCPCM302	Provide information on plants and their culture
AHCSOL301	Prepare growing media
AHCNSY301	Maintain nursery plants
AHCNSY302	Receive and dispatch nursery products

Group B

Unit Code	Unit Title
AHCBIO302	Identify and report unusual disease or plant pest signs
AHCCHM301	Use application equipment to apply fumigant to confined spaces* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM302	Fumigate soil* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals
AHCDRG301	Install drainage systems
AHCDRG302	Measure drainage system performance
AHCDRG303	Troubleshoot drainage systems

AHCHYD301	Implement a maintenance program for hydroponic systems
AHCHYD302	Install hydroponic systems
AHCIRG331	Install pressurised irrigation systems
AHCIRG332	Operate pressurised irrigation systems
AHCIRG333	Maintain pressurised irrigation systems
AHCIRG303	Measure irrigation delivery system performance
AHCIRG306	Troubleshoot irrigation systems
AHCMOM301	Coordinate machinery and equipment maintenance and repair
AHCMOM302	Perform machinery maintenance
AHCMOM304	Operate machinery and equipment
AHCMOM305	Operate specialised machinery and equipment
AHCMOM315	Operate chemical application machinery and equipment
AHCNSY303	Install and maintain plant displays
AHCNSY304	Deliver and promote sales of plants
AHCNSY305	Prepare specialised plants
AHCNSY306	Implement a propagation plan
AHCNSY307	Operate fertigation equipment
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders
AHCPMG410	Implement the pest monitoring and evaluation plan
AHCPHT301A	Carry out a crop regulation program
AHCPHT303	Implement a post-harvest program
AHCPHT305	Regulate crops
AHCPHT306	Establish horticultural crops
AHCPHT310	Coordinate horticultural crop harvesting

AHCWAT301	Monitor and operate water treatment processes
AHCWRK302	Monitor weather conditions
AHCWRK303	Respond to emergencies
AHCWRK305	Coordinate work site activities
AHCWRK306	Comply with industry quality assurance requirements
AHCWRK308	Handle bulk materials in storage area
AHCWRK309	Apply environmentally sustainable work practices

Qualification Mapping Information

This qualification is equivalent to AHC33210 Certificate III in Floriculture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC33316 Certificate III in Feedlot Operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome in beef cattle feedlot operations. Electives must be chosen to cover a feedlot maintenance, pen riding, or feeding and milling stream.

The testamur issued for this qualification is to be titled AHC33315 Certificate III in Feedlot Operations. An additional descriptor may be added by the RTO to reflect unit selection. This includes:

- AHC33315 Certificate III in Feedlot Operations (Feedlot Maintenance)
- AHC33315 Certificate III in Feedlot Operations (Feeding and Milling)
- AHC33315 Certificate III in Feedlot Operations (Pen Riding)

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 17

- Core Units = 6
- Elective Units = 11

Core Units

Biosecurity

Unit Code	Unit Title
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AHC BIO302	Identify and report unusual disease or plant pest signs
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Chemicals

Unit Code	Unit Title
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals

Work

Unit Code	Unit Title
AHCWRK209	Participate in environmentally sustainable work practices
AHCWRK306	Comply with industry quality assurance requirements

Work health and safety

Unit Code	Unit Title
AHCWHS301	Contribute to work health and safety processes

Elective Units

- In order to achieve Feedlot Maintenance specialisation, 8 units must be selected from Group A
- In order to achieve Feeding and Milling specialisation, 8 units must be selected from Group B
- In order to achieve Pen Riding specialisation, 8 units must be selected from Group C
- 3 units aligned to AQF levels 2, 3, or 4 may be selected from Groups A, B, C, or D, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in the feedlot industry and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Infrastructure

Unit Code	Unit Title
AHCINF204	Fabricate and repair metal or plastic structures
AHCINF301	Implement property improvement, construction and repair

Livestock

Unit Code	Unit Title
AHCLSK216	Clean and maintain livestock pens
AHCLSK328	Remove and facilitate reuse of effluent and manure from an intensive production system

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM207	Conduct front-end loader operations
AHCMOM301	Coordinate machinery and equipment maintenance and repair
AHCMOM305	Operate specialised machinery and equipment

Pest management

Unit Code	Unit Title
AHCPMG301	Control weeds

Production Horticulture

Unit Code	Unit Title
AHCPHT307	Prepare raw materials and compost the feedstocks

Resources and Infrastructure

Unit Code	Unit Title
RIIWHS202D	Enter and work in confined spaces

RIIWHS204D	Work safely at heights
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Work

Unit Code	Unit Title
AHCWRK309	Apply environmentally sustainable work practices

Group B

Broadacre Cropping

Unit Code	Unit Title
AHCBAC204	Prepare grain storages
AHCBAC303	Prepare to receive grains and seeds

Livestock

Unit Code	Unit Title
AHCLSK310	Prepare grain storages
AHCLSK326	Prepare to receive grains and seeds
AHCLSK333	Monitor pen condition and ration suitability
FDFGR3002	Demonstrate knowledge of animal nutrition principles

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM205	Operate vehicles
AHCMOM207	Conduct front-end loader operations
AHCMOM211	Operate side by side utility vehicles
AHCMOM302	Perform machinery maintenance
AHCMOM305	Operate specialised machinery and equipment

FDFOP2038A	Operate a grinding process
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Pest management

Unit Code	Unit Title
AHCPMG301	Control weeds

Resources and Infrastructure

Unit Code	Unit Title
RIIWHS202D	Enter and work in confined spaces
RIIWHS204D	Work safely at heights

Work

Unit Code	Unit Title
AHCWRK308	Handle bulk materials in storage area

Group C

Livestock

Unit Code	Unit Title
AHCLSK301	Administer medication to livestock
AHCLSK304	Carry out post-mortem examination of livestock
AHCLSK307	Euthanase livestock
AHCLSK308	Identify and draft livestock
AHCLSK309	Implement animal health control programs
AHCLSK310	Implement feeding plans for intensive production
AHCLSK331	Comply with industry animal welfare requirements
AHCLSK332	Monitor animals in intensive production systems

AHCLSK333	Monitor pen condition and ration suitability
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Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM205	Operate vehicles
AHCMOM211	Operate side by side utility vehicles

Group D

Infrastructure

Unit Code	Unit Title
AHCINF302	Plan and construct an electric fence
AHCINF303	Plan and construct conventional fencing

Machinery Operation and Maintenance

Unit Code	Unit Title
AHCMOM212	Operate quad bikes

Transport and Logistics

Unit Code	Unit Title
TLILIC2001	Licence to operate a forklift truck

Qualification Mapping Information

This qualification is equivalent to AHC33311 Certificate III in Feedlot Operations.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC33416 Certificate III in Seed Production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the roles of workers on commercial seed production properties who grow crops within strict certification guidelines.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this Qualification.

Packaging Rules

Total number of units = 16

- Core Units = 6
- Elective Units = 10

Core Units

Unit Code	Unit Title
AHCSDP301	Undertake preparation of land for seed crops
AHCSDP302	Establish seed crops
AHCSDP303	Maintain seed crops
AHCSDP304	Harvest seed crops
AHCWRK309	Apply environmentally sustainable work practices
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 7 units from the list below
- 3 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in seed production and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Unit Code	Unit Title
AHCAGB301	Keep production records for a primary production business
AHCBER303	Carry out emergency disease or plant pest control procedures at infected premises
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals
AHCINF301	Implement property improvement, construction and repair
AHCINF302	Plan and construct an electric fence
AHCINF303	Plan and construct conventional fencing
AHCIRG303	Measure irrigation delivery system performance
AHCIRG308	Monitor soils under irrigation
AHCIRG327	Implement an irrigation schedule
AHCIRG331	Install pressurised irrigation components
AHCIRG332	Operate pressurised irrigation systems
AHCIRG333	Maintain pressurised irrigation systems
AHCIRG334	Operate and maintain gravity fed irrigation systems
AHCIRG335	Operate and maintain moving irrigation system
AHCMOM202	Operate tractors
AHCMOM301	Coordinate machinery and equipment maintenance and repair

AHCMOM302	Perform machinery maintenance
AHCMOM304	Operate machinery and equipment
AHCMOM305	Operate specialised machinery and equipment
AHCMOM306	Ground spread fertiliser and soil ameliorant
AHCMOM308	Operate broadacre and row crop harvest machinery and equipment
AHCMOM309	Operate broadacre sowing machinery and equipment
AHCMOM312	Operate row crop planting and seeding machinery and equipment
AHCMOM313	Operate mobile irrigation machinery and equipment
AHCMOM314	Transport machinery
AHCMOM315	Operate chemical application machinery and equipment
AHCPCM301	Implement a plant nutrition program
AHCPCM303	Identify plant specimens
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders
AHCPMG308	Implement pest management strategies
AHCWRK301	Collect samples for a rural production or horticulture monitoring program
AHCWRK302	Monitor weather conditions
AHCWRK303	Respond to emergencies
AHCWRK305	Coordinate work site activities
AHCWRK306	Comply with industry quality assurance requirements
AHCWRK308	Handle bulk materials in storage area
FDFWGG3010A	Implement a soil management program
LMFGG2002B	Apply first aid
HLTAID005	Provide first aid in remote situation
MEM05004C	Perform routine oxy acetylene welding

MEM05007C	Perform manual heating and thermal cutting
MEM05012C	Perform routine manual metal arc welding
TLILIC2001	Licence to operate a forklift truck

Qualification Mapping Information

This qualification is equivalent to AHC33412 Certificate III in Seed Production.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC33516 Certificate III in Seed Testing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the roles of workers who perform a range of tests on seed in seed laboratories. Seed analysts work under the supervision of senior seed analysts. There are no entry requirements for this Qualification, however applicants should be working under supervision in a seed testing laboratory.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 18

- Core Units = 9
- Elective Units = 9

Core Units

Unit Code	Unit Title
AHCSDT301	Prepare a working sample
AHCSDT302	Identify seeds
AHCSDT304	Perform a seed purity analysis
AHCSDT305	Perform a seed moisture test

AHCSDT306	Perform a seed germination test
AHCSDT307	Perform a "Determination of Other Seeds by Number" test
AHCWRK306	Comply with industry quality assurance requirements
AHCWRK309	Apply environmentally sustainable work practices
AHCWHS301	Contribute to work health and safety processes

Elective Units

- Select 5 units from list below
 - 4 units may be selected from this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in a seed testing laboratory and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Unit Code	Unit Title
AHCSDT303	Perform a fluorescence test on seeds
AHCSDT405	Handle & store quarantinable seeds
AHCWRK303	Respond to emergencies
AHCWRK305	Coordinate work site activities
MSL922001	Record and present data
MSL933001	Maintain the laboratory/field workplace fit for purpose
MSL933004	Perform calibration checks on equipment and assist with its maintenance
MSL934003	Maintain and control stocks
MSL973007	Perform microscopic examination
TAEDEL301	Provide work skill instruction

Qualification Mapping Information

This qualification is equivalent to AHC33512 Certificate III in Seed Testing.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC33616 Certificate III in Pest Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides occupation outcomes for pest management field officers, vertebrate pest management field officers and spray operators in the pest management industry. The qualification covers those who work in weed management as well as vertebrate pest management in conservation, land management, horticulture and agriculture settings.

Job functions may include:

- participating in strategic invasive species management practices
- preparing for and carrying out management programs, under general direction
- completing and assessing management programs under general direction
- carrying out weed management programs that require chemical spraying
- record keeping

Some job functions covered by this qualification may require occupational licencing or certification. Specific determination should be sought through the relevant State or Territory agency.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 3
- Elective Units =9

Core Units

Unit Code	Unit Title
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AHCWHS301	Contribute to work health and safety processes
AHCPMG308	Implement pest management strategies
AHCPMG203	Work effectively in a pest management environment

Elective Units

- Select at least 5 units from Group A
- Select 4 units from Group A or B

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Unit Code	Unit Title
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals
AHCPMG201	Treat weeds
AHCPMG202	Treat plant pests, diseases and disorders
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders
AHCPMG305	Survey pests
AHCPMG306	Determine pest control techniques
AHCPMG307	Apply animal trapping techniques
AHCPMG309	Apply pest animal control techniques
AHCPMG304	Use firearms to humanely destroy animals
AHCWRK305	Coordinate work site activities
AHCWRK311	Conduct site inspections

Group B

Biosecurity

Unit Code	Unit Title
AHCBIO201	Inspect and clean machinery for plant, animal and soil material
AHCBIO305	Apply biosecurity measures

Chemicals

Unit Code	Unit Title
AHCCHM305	Conduct manual fumigation of vertebrate and invertebrate pests* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport, handle and store chemicals</i>

Explosives

Unit Code	Unit Title
AHCEXP301	Handle and store explosives

Fauna

Unit Code	Unit Title
AHCFAU201	Recognise fauna

Infrastructure

Unit Code	Unit Title
AHCINF201	Carry out basic electric fencing operations
AHCINF202	Install, maintain and repair farm fencing

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM302	Perform machinery maintenance

AHCMOM304	Operate machinery and equipment
AHCMOM315	Operate chemical application machinery and equipment

Natural Area Restoration

Unit Code	Unit Title
AHCNAR306	Conduct photography for fieldwork
AHCNAR307	Read and interpret maps

Plant care

Unit Code	Unit Title
AHCPCM202	Collect, prepare and preserve plant specimens
AHCPCM303	Identify plant specimens

Pest management

Unit Code	Unit Title
AHCPMG310	Prepare, monitor and maintain biological agents
AHCPMG311	Use firearms for pest control activities from aircraft

Work

Unit Code	Unit Title
AHCWRK203	Operate in isolated and remote situations
AHCWRK302	Monitor weather conditions
AHCWRK303	Respond to emergencies
FWPCOT3259	Operate four wheel drive on unsealed roads
FWPCOT3202	Navigate in trackless or remote areas
HLTAID003	Provide first aid

HLTAID005	Provide first aid in remote situations
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Qualification Mapping Information

No equivalent qualification.

This qualification is not equivalent to:

ACH31910 Certificate III in Weed Management

AHC31810 Certificate III in Vertebrate Pest Management

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC33816 Certificate III in Permaculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification relates to those individuals who work either independently or in teams to establish and maintain permaculture systems for private clients, organisations or community entities. They perform tasks involving a broad range of skilled applications in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, elements in a design or contingency measures.

The qualification is suited to learners who wish to work at the skilled tradesman level within permaculture projects and enterprises, and may involve supervision of others and working with people of diverse backgrounds and abilities.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 5
- Elective Units = 10

Core Units

Unit Code	Unit Title
AHCPER301	Research and communicate information on permaculture principles and practices
AHCPER302	Develop recommendations for integrated plant and animal systems

AHCPER303	Maintain integrated plant and animal systems
AHCPER316	Select plant and animal species for permaculture systems
AHCWRK311	Conduct site inspections

Elective Units

- Select 1 unit from Group A
 - Select 6 units from Group B
 - Select 3 units from Group B or C
 - 1 unit may be selected from Group C or this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in Permaculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 3

Group A

Unit Code	Unit Title
AHCPER307	Establish a rural permaculture system
AHCPER308	Establish an urban permaculture system

Group B

Unit Code	Unit Title
AHCPER304	Carry out animal care, maintenance and treatment programs in permaculture systems
AHCPER305	Implement crop maintenance and harvesting programs for permaculture systems
AHCPER306	Use weedy plants in a permaculture system
AHCPER307	Establish a rural permaculture system
AHCPER308	Establish an urban permaculture system
AHCPER309	Install and maintain permaculture water systems
AHCPER310	Install structures for permaculture systems

AHCPER311	Kill and dress small livestock for domestic consumption
AHCPER312	Plan organic garden and orchard systems
AHCPER313	Coordinate preparation and storage of permaculture products
AHCPER314	Read and interpret property maps and plans
AHCPER315	Coordinate community projects
AHCPER317	Build with earth, straw and reclaimed materials
AHCPER318	Plan propagation activities for a permaculture system
AHCPER319	Test, improve and maintain soil in a permaculture system
AHCPER320	Manage plant pests, diseases and disorders in a permaculture system
AHCPER321	Demonstrate permaculture practices to small groups of learners
AHCPER411	Operate within a sustainable community and bioregional development program
AHCPER412	Operate within a permaculture aid and development program

Group C

Unit Code	Unit Title
AHCILM306	Follow Aboriginal cultural protocols
AHCILM303	Work with an Aboriginal Community or organisation
AHCINF301	Implement property improvement, construction and repair
AHCLSK319	Slaughter livestock
AHCNAR301	Maintain natural areas
AHCSAW302	Implement erosion and sediment control measures
AHCWRK302	Monitor weather conditions
TAEDEL301A	Provide work skill instruction

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC40116 Certificate IV in Agriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop post-trade skills and knowledge to become specialists within the agriculture industry. It is designed to meet the needs of supervisors or team leaders in the agriculture industry.

Industry expects that individuals with this qualification will take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

This qualification is suitable for an Australian Apprenticeship.

Job roles vary across different industry sectors and include:

- Farm team leader
- Farm supervisor

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 1
- Elective Units = 11

Core Unit

Work health and safety

Unit Code	Unit Title
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AHCWHS401	Maintain work health and safety processes
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Elective Units

- Select 4 units from Group A
- Select 5 units from Group A or Group B
- 2 units aligned to AQF levels 3, 4, or 5 may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in agriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the unit.

Group A

Broadacre cropping

Unit Code	Unit Title
AHCBAC401	Manage pastures for livestock production
AHCBAC402	Plan a pasture establishment program
AHCBAC403	Supervise agricultural crop establishment
AHCBAC404	Plan and implement agricultural crop maintenance
AHCBAC405	Supervise agricultural crop harvesting
AHCBAC406	Maintain grain quality in storage
AHCBAC407	Save, prepare and store agricultural seed

Chemicals

Unit Code	Unit Title
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>

Dairy

Unit Code	Unit Title
AHCDRY401	Manage milking shed routines

Livestock

Unit Code	Unit Title
AHCLSK312	Coordinate artificial insemination and fertility management of livestock
AHCLSK317	Plan to exhibit livestock
AHCLSK401	Develop feeding plans for a production system
AHCLSK402	Develop livestock feeding plans
AHCLSK404	Implement and monitor animal welfare programs
AHCLSK405	Implement intensive production systems
AHCLSK406	Oversee animal marking operations
AHCLSK407	Plan and monitor intensive production systems
AHCLSK408	Pregnancy test animals
AHCLSK409	Supervise animal health programs
AHCLSK410	Supervise feedlot operations
AHCLSK411	Supervise natural mating of livestock
AHCLSK412	Arrange livestock purchases
AHCLSK413	Design livestock handling facilities
AHCLSK414	Arrange transport for farm produce or livestock
AHCLSK415	Oversee alpaca farm activities
AHCLSK416	Identify and select animals for breeding
AHCLSK418	Escort livestock during export * <i>AHCLSK307 Euthanase livestock</i> <i>AHCLSK331 Comply with industry animal welfare requirements</i>

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM402	Supervise maintenance of property, machinery and equipment

Pest management

Unit Code	Unit Title
AHCPMG412	Develop a pest management plan

Pork production

Unit Code	Unit Title
AHCPRK401	Implement a feeding strategy for pig production

Group B**Agribusiness**

Unit Code	Unit Title
AHCAGB401	Plan and implement property improvement
AHCAGB402	Analyse and interpret production data
BSBRK401	Identify risk and apply risk management processes

Artificial insemination

Unit Code	Unit Title
AHCAIS401	Supervise artificial breeding and embryo transfer programs

Business

Unit Code	Unit Title
AHCBUS401	Administer finance, insurance and legal requirements

AHCBUS402	Cost a project
AHCBUS404	Operate within a budget framework
AHCBUS405	Participate in an e-business supply chain
AHCBUS509	Develop and implement business structures and relationships
BSBCM401	Make a presentation
BSBFIA402	Report on financial activity
BSBHRM405	Support the recruitment, selection and induction of staff
BSBINM401	Implement workplace information system
BSBITU404	Produce complex desktop published documents
BSBLDR403	Lead team effectiveness
BSBSMB405	Monitor and manage small business operations
BSBSMB406	Manage small business finances

Chemicals

Unit Code	Unit Title
AHCCHM401	Develop procedures to minimise risks in the use of chemicals * <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>

Deer

Unit Code	Unit Title
AHCDER401	Handle, store and grade deer velvet
AHCDER501	Comply with deer industry national velvet accreditation requirements
AHCDER502	Harvest deer velvet

Irrigation

Unit Code	Unit Title
AHCIRG431	Supervise irrigation system installation
AHCIRG402	Determine hydraulic parameters for an irrigation system
AHCIRG404	Implement an irrigation-related environmental protection program
AHCIRG415	Interpret and apply irrigation designs
AHCIRG431	Supervise irrigation system installation
AHCIRG408	Schedule irrigations

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM401	Conduct major repair and overhaul of machinery and equipment

Merchandising and sales

Unit Code	Unit Title
AHCMER401	Coordinate customer service and networking activities
AHCMER402	Provide advice and sell machinery
AHCMER403	Provide advice and sell farm chemicals
AHCMER404	Provide advice on agronomic products
AHCMER405	Provide advice on livestock products
AHCMER406	Provide information on fertilisers and soil ameliorants

Milk harvesting

Unit Code	Unit Title
AHCMKH401	Carry out cleaning-time tests of milking machines
AHCMKH402	Design and fabricate milking equipment installations
AHCMKH403	Design and install enterprise milk cooling and storage

AHCMKH404	Install milking equipment
AHCMKH405	Performance test milking machines

Organic production

Unit Code	Unit Title
AHCORG401	Manage biodynamic production
AHCORG402	Manage organic livestock production
AHCORG403	Manage organic soil improvement

Plants

Unit Code	Unit Title
AHCPCM402	Develop a soil health and plant nutrition program

Shearing

Unit Code	Unit Title
AHCSHG401	Apply advanced shearing techniques
AHCSHG402	Conduct equipment experting for machine shearing
AHCSHG403	Account for shearing shed supplies
AHCSHG405	Arrange employment for shearing operations
AHCSHG406	Prepare shearing team wages

Soils and media

Unit Code	Unit Title
AHCSOL401	Sample soils and interpret results
AHCSOL402	Develop a soil use map for a property
AHCSOL403	Prepare acid sulphate soil management plans

AHCSOL404	Supervise acid sulphate soil remediation and management projects
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Wool

Unit Code	Unit Title
AHCWOL401	Determine wool classing strategies
AHCWOL402	Use individual fleece measurements to prepare wool for sale
AHCWOL403	Prepare for, implement and review wool harvesting, clip preparation and classing
AHCWOL404	Establish work routines and manage wool harvesting and preparation staff

Work

Unit Code	Unit Title
AHCWRK401	Implement and monitor quality assurance procedures
AHCWRK402	Provide information on issues and policies
AHCWRK403	Supervise work routines and staff performance
PSPPM402B	Manage simple projects
MSL913002	Plan and conduct laboratory/field work
SRXGRO002A	Deal with conflict
TAEDEL301	Provide work skill instruction

Qualification Mapping Information

This qualification is equivalent to AHC40110 Certificate IV in Agriculture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC40316 Certificate IV in Production Horticulture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop post-trade skills and knowledge to become specialists within the production horticulture industry. It is designed to meet the needs of supervisors or team leaders in the production horticulture industry.

The qualification enables individuals to select a tree cropping, vegetable, berry or flower production, grape growing or mushroom production context as a job focus, or a mixture in the case of mixed enterprises.

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 1
- Elective Units = 11

Core Units

Unit Code	Unit Title
AHCWHS401	Maintain work health and safety processes

Elective Units

- Select 3 units from Group A
 - Select 5 units from Group A or B
 - 3 units may be selected from Group B or from this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in production horticulture and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Group A

Unit Code	Unit Title
AHCCHM401	Minimise risks in the use of chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCIRG408	Schedule irrigations
AHCPCM401	Recommend plants and cultural practices
AHCPCM402	Develop a soil health and plant nutrition program
AHCPHT402	Develop a crop regulation program
AHCPHT404	Implement and monitor a horticultural crop harvesting program
AHCNSY401	Plan a growing-on program
AHCNSY402	Plan a propagation program
AHCSOL401	Sample soils and interpret results

Group B

Unit Code	Unit Title
AHCBUS404	Operate within a budget framework
AHCBUS405	Participate in an e-business supply chain

FDFTEC3001A	Participate in a HACCP team* <i>FDFFS2001A Implement the food safety program and procedures</i>
FDFFS2001A	Implement the food safety program and procedures
FDFFS3001A	Monitor the implementation of quality and food safety program* <i>FDFFS2001A Implement the food safety program and procedures</i>
AHCIRG402	Determine hydraulic parameters for an irrigation system
AHCIRG404	Implement an irrigation-related environmental protection program
AHCIRG434	Manage surface irrigation systems
AHCORG401	Manage biodynamic production
AHCORG403	Manage organic soil improvement
AHCPHT401	Assess olive oil for style and quality
AHCPHT403	Develop harvesting and processing specifications to produce an olive oil
AHCPHT405	Manage mushroom substrate preparation
AHCPHT406	Control Phase II mushroom substrate process
AHCPHT407	Manage mushroom crop development
AHCPHT408	Oversee vineyard practices
AHCSOL402	Develop a soil use map for a property
AHCWRK401	Implement and monitor quality assurance procedures
AHCWRK402	Provide information on issues and policies
AHCWRK403	Supervise work routines and staff performance

Qualification Mapping Information

This qualification is equivalent to AHC40310 Certificate IV in Production Horticulture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC40416 Certificate IV in Horticulture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop post-trade skills and knowledge across a broad coverage of the industry prior to undertaking higher level roles in the industry.

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 1
- Elective Units = 11

Core Units

Unit Code	Unit Title
AHCWHS401	AHCWHS401 Maintain work health and safety processes

Elective Units

- Select 7 units from elective list below

- 4 units aligned to AQF level 3, 4 or 5 may be selected from electives below or from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in horticulture and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Unit Code	Unit Title
AHCBUS402	Cost a project
AHCBUS404	Operate within a budget framework
AHCCHM401	Develop procedures to minimise risks in the use of chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM403	Prepare safe operating procedures for calibration of equipment
AHCIRG402	Determine hydraulic parameters for an irrigation system
AHCIRG404	Implement an irrigation-related environmental protection program
AHCIRG408	Schedule irrigations
AHCIRG431	Supervise irrigation system installation
AHCIRG434	Manage surface irrigation systems
AHCLSC401	Supervise landscape project works
AHCMER401	Coordinate customer service and networking activities
AHCMOM401	Conduct major repair and overhaul of machinery and equipment
AHCMOM402	Supervise maintenance of property machinery and equipment
AHCNAR401	Supervise natural area restoration works
AHCNAR402	Plan the implementation of revegetation works
AHCNSY401	Plan a growing-on program
AHCNSY402	Plan a propagation program

AHCORG401	Manage biodynamic production
AHCORG402	Manage organic livestock production
AHCORG403	Manage organic soil improvement
AHCPCM401	Recommend plants and cultural practices
AHCPCM402	Develop a soil health and plant nutrition program
AHCPGD401	Design plant displays
AHCPGD402	Plan a plant establishment program
AHCPMG409	Implement a pest management plan
AHCPMG410	Implement the pest monitoring and evaluation plan
AHCPMG411	Ensure compliance with pest legislation
AHCSOL401	Sample soils and interpret results
AHCTRF401	Develop a sports turf maintenance program
AHCTRF402	Plan and implement sports turf renovation
AHCWRK401	Implement and monitor quality assurance procedures
AHCWRK402	Provide information on issues and policies
AHCWRK403	Supervise work routines and staff performance
BSBDES403	Develop and extend design skills and practice
BSBHRM405	Support the recruitment, selection and induction of staff
BSBITU404	Produce complex desktop published documents
BSBREL402	Build client relationships and business networks
BSBRES401	Analyse and present research information
BSBSMB406	Manage small business finances
CUAACD303	Produce technical drawings
PSPPM402B	Manage simple projects
SIRXINV004A	Buy merchandise

TLIR4002	Source goods/services and evaluate contractors
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Qualification Mapping Information

This qualification is equivalent to AHC40410 Certificate IV in Horticulture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC40516 Certificate IV in Parks and Gardens

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop post-trade skills and knowledge to become a senior or head gardener. The parks and gardens industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 14

- Core Units =7
- Elective Units = 7

Core Units

Unit Code	Unit Title
AHCBUS402	Cost a project
AHCPCM401	Recommend plants and cultural practices
AHCPCM402	Develop a soil health and plant nutrition program
AHCPGD402	Plan a plant establishment program
AHCTRF401	Develop a sports turf maintenance program

AHCWHS401	Maintain work health and safety processes
PSPPM402B	Manage simple projects

Elective Units

- Select 4 units from the list below
- 3 units may be selected from the list below or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in parks and gardens and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Unit Code	Unit Title
AHCCHM401	Develop procedures to minimise risks in the use of chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM403	Prepare safe operating procedures for calibration of equipment
AHCIRG402	Determine hydraulic parameters for an irrigation system
AHCIRG431	Supervise irrigation system installation
AHCLSC401	Supervise landscape project works
AHCMOM401	Conduct major repair and overhaul of machinery and equipment
AHCMOM402	Supervise maintenance of property machinery and equipment
AHCNSY401	Plan a growing-on program
AHCNSY402	Plan a propagation program
AHCPGD401	Design plant displays
AHCPMG410	Implement the pest monitoring and evaluation plan
AHCSOL401	Sample soils and interpret results

AHCTRF402	Plan and implement sports turf renovation
AHCWRK401	Implement and monitor quality assurance procedures
AHCWRK402	Provide information on issues and policies
AHCWRK403	Supervise work routines and staff performance
AHCPMG411	Ensure compliance with pest legislation
BSBDES403	Develop and extend design skills and practice
BSBITU401	Design and develop complex text documents
BSBSMB406	Manage small business finances
TLIR4002	Source goods/services and evaluate contractors

Qualification Mapping Information

This qualification is equivalent to AHC40510 Certificate IV in Parks and Gardens.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC40616 Certificate IV in Production Nursery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop post-trade skills and knowledge to become specialists within the production nursery industry. The nursery industry expects this qualification to be achieved to meet job outcomes at this level.

Job roles and titles covered by this qualification may include:

- production nursery supervisor

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 14

- Core Units = 7
- Elective Units = 7

Core Units

Unit Code	Unit Title
AHCIRG408	Schedule irrigations
AHCMOM402	Supervise maintenance of property machinery and equipment
AHCPCM402	Develop a soil health and plant nutrition program

AHCPHT502	Develop a horticultural production plan
AHCPMG410	Implement the pest monitoring and evaluation plan
AHCWHS401	Maintain work health and safety processes
AHCWRK403	Supervise work routines and staff performance

Elective Units

- Select 4 units from list below
- 3 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in nursery production and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Unit Code	Unit Title
AHCPCM401	Recommend plants and cultural practices
AHCBER401	Plan and supervise control activities on infected premises
AHCBER402	Carry out field surveillance for a specific emergency disease or plant pest
AHCBIO403	Plan and implement a farm or enterprise biosecurity plan
AHCBUS402	Cost a project
AHCBUS404	Operate within a budget framework
AHCBUS405	Participate in an e-business supply chain
AHCCHM401	Minimise risks in the use of chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCNSY401	Plan a growing-on program

AHCNSY402	Plan a propagation program
AHCPCM501	Diagnose plant health problems
AHCPGD401	Design plant displays
BSBRK401	Identify risk and apply risk management processes
BSBSUS401	Implement and monitor environmentally sustainable work practices
SIRRINV002	Control stock

Qualification Mapping Information

This qualification is equivalent to AHC40610 Certificate IV in Production Nursery.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC40716 Certificate IV in Retail Nursery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop post-trade skills and knowledge to become specialists within the retail nursery industry. The nursery industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 6
- Elective Units = 6

Core Units

Unit Code	Unit Title
AHCMER401	Coordinate customer service and networking activities
AHCPCM401	Recommend plants and cultural practices
AHCPGD401	Design plant displays
AHCWHS401	Maintain work health and safety processes
AHCWRK403	Supervise work routines and staff performance

SIRRINV002	Control stock
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Elective Units

- Select 3 units from list below
- 3 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in retail nursery work and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Unit Code	Unit Title
AHCBUS509	Develop and implement business structures and relationships
AHCBUS404	Operate within a budget framework
AHCBUS405	Participate in an e-business supply chain
AHCBUS507	Monitor and review business performance
AHCCHM401	Develop procedures to minimise risks in the use of chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCIRG408	Schedule irrigations
AHCMOM402	Supervise maintenance of property machinery and equipment
AHCPCM402	Develop a soil health and plant nutrition program
AHCWRK309	Apply environmentally sustainable work practices
AHCWRK401	Implement and monitor quality assurance procedures
BSBFIA402	Report on financial activity
BSBHRM405	Support the Recruitment, selection and induction of staff
BSBREL402	Build client relationships and business networks

BSBRSK401	Identify risk and apply risk management processes
BSBSMB406	Manage small business finances
BSBLDR403	Lead team effectiveness
SIRXINV004A	Buy merchandise
SIRXMER004A	Manage merchandise and store presentation
SIRRMER003	Coordinate visual merchandising activities
SIRXMER406	Monitor in-store visual merchandising display
SIRXMPR001A	Profile a retail market
SIRXRSK404	Control store security

Qualification Mapping Information

This qualification is equivalent to AHC40710 Certificate IV in Retail Nursery.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC40816 Certificate IV in Sports Turf Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop post-trade skills and knowledge to become specialists within the turf industry. The sports turf industry expects this qualification to be achieved to meet job outcomes at this level.

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

Certificate III in Sports Turf Management or equivalent qualification in green keeping or turf management.

Packaging Rules

Total number of units = 12

- Core Units = 4
- Elective Units = 8

Core Units

Unit Code	Unit Title
AHCIRG408	Schedule irrigations
AHCPCM402	Develop a soil health and plant nutrition program
AHCTRF401	Develop a sports turf maintenance program
AHCTRF402	Plan and implement sports turf renovation

Elective Units

- Select 6 units from the list below
- 2 units may be selected from the elective units below or from units packaged at Certificates III, IV or Diploma level from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in sports turf management and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Unit Code	Unit Title
AHCBUS402	Cost a project
AHCCHM401	Develop procedures to minimise risks in the use of chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCIRG431	Supervise irrigation system installation
AHCMOM402	Supervise maintenance of property machinery and equipment
AHCPCM401	Recommend plants and cultural practices
AHCPMG410	Implement the pest monitoring and evaluation plan
AHCSOL401	Sample soils and interpret results
AHCWHS401	Maintain work health and safety processes
AHCWRK403	Supervise work routines and staff performance
AHCWRK511	Develop workplace policy and procedures for sustainability

Qualification Mapping Information

This qualification is equivalent to AHC40812 Certificate IV in Sports Turf Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC40916 Certificate IV in Conservation and Land Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop post-trade skills and knowledge to become specialists within the conservation and land management industry.

This qualification enables a selection of units from indigenous land management, natural area restoration, conservation earthworks or lands, parks and wildlife to create a general qualification as a job focus.

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 1
- Elective Units = 11

Core Units

Unit Code	Unit Title
ACMWHS401A	Maintain work health and safety processes

Elective Units

- Select at least 7 units from the elective list
- 4 units may be selected from the elective list of any Certificate III, IV or Diploma of this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in conservation and land management and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Biosecurity

Unit Code	Unit Title
AHCBER401	Plan and supervise control activities on infected premises
AHCBER402	Carry out field surveillance for a specific emergency disease or plant pest
AHCNRM401	Plan and implement a biosecurity program

Business

Unit Code	Unit Title
AHCBUS402	Cost a project
AHCBUS404	Operate within a budget framework
BSBRES401	Analyse and present research information
TLIR4002	Source goods/services and evaluate contractors

Chemicals

Unit Code	Unit Title
AHCCHM401	Develop procedures to minimise risks in the use of chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i>

	<i>AHCCHM304 Transport and store chemicals</i>
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Community coordination and facilitation

Unit Code	Unit Title
AHCCCF401	Prepare a project acquittal
AHCCCF402	Report on project
AHCCCF403	Obtain and manage sponsorship
AHCCCF404	Contribute to association governance
AHCCCF405	Develop community networks
AHCCCF406	Facilitate ongoing group development
AHCCCF407	Obtain resources from community and groups
AHCCCF408	Promote community programs
AHCCCF409	Participate in assessments of project submissions
AHCCCF410	Support individuals in resource management change processes
AHCCCF411	Develop approaches to include cultural and human diversity
AHCCCF412	Coordinate board or committee elections
AHCCCF413	Service committees
AHCCCF414	Coordinate fundraising activities
AHCCCF415	Coordinate social events to support group purposes
AHCCCF416	Present proposed courses of action to meeting
CHCCDE002	Develop and implement community programs
LGACOM502B	Devise and conduct community consultations

Fire

Unit Code	Unit Title
PUAFIR303B	Suppress wildfire*

	<i>PUAFIR204B Respond to wildfire</i>
PUAFIR407B	Conduct prescribed burning* <i>PUAFIR303B Suppress wildfire</i>
PUAOPE005B	Manage a multi team response
PUAOPE004B	Conduct briefings/debriefings

Indigenous Land management

Unit Code	Unit Title
AHCILM401	Protect places of cultural significance
AHCILM402	Report on place of potential cultural significance
AHCILM403	Contribute to the proposal for a negotiated outcome for a given area of Country
AHCILM404	Record and document Community history
AHCILM405	Develop work practices to accommodate cultural identity
SITTGDE007	Research and share general information on Australian Indigenous cultures

Landscape

Unit Code	Unit Title
AHCLSC401	Supervise landscape project works

Lands, parks and wildlife

Unit Code	Unit Title
AHCLPW401	Process applications for changes in land use
AHCLPW402	Implement land and sea management practices
AHCLPW403	Inspect and monitor cultural places
AHCLPW404	Produce maps for land management purposes

AHCLPW405	Monitor biodiversity
PUACOM012B	Liaise with media at a local level
PUALAW001B	Protect and preserve incident scene
SITTGDE008	Prepare specialised interpretive content on flora, fauna and landscape
SITTGDE010	Prepare specialised interpretive content on cultural and heritage environments
SITTPPD002	Develop interpretive activities
SITXCCS002	Provide visitor information

Machinery operations and maintenance

Unit Code	Unit Title
AHCMOM402	Supervise the maintenance of property machinery and equipment

Natural area restoration

Unit Code	Unit Title
AHCNAR401	Supervise natural area restoration works
AHCNAR402	Plan the implementation of revegetation works
FWPFGM3201	Manage seed collection

Pest management

Unit Code	Unit Title
AHCPMG409	Implement a pest management plan
AHCPMG410	Implement the pest monitoring and evaluation plan
AHCPMG411	Ensure compliance with pest legislation
AHCPMG412	Develop a pest management plan
AHCPMG413	Define the pest problem

AHCPMG507	Develop a regional pest management plan
AHCPMG508	Develop a system to monitor and evaluate the pest management plan
AHCPMG509	Investigate a pest control failure

Parks and gardens

Unit Code	Unit Title
AHCPGD402	Plan a plant establishment program

Plants

Unit Code	Unit Title
AHCPCM401	Recommend plants and cultural practices

Soil and water conservation

Unit Code	Unit Title
AHCSAW401	Set out conservation earthworks
AHCSAW403	Supervise implementation of conservation earthworks plans

Soil and media

Unit Code	Unit Title
AHCSOL401	Sample soils and interpret results
AHCSOL403	Prepare acid sulphate soil management plans
AHCSOL404	Supervise acid sulphate soil remediation and management projects

Work

Unit Code	Unit Title
AHCWRK401	Implement and monitor quality assurance procedures

AHCWRK402	Provide information on issues and policies
AHCWRK403	Supervise work routines and staff performance
BSBLDR403	Lead team effectiveness
LGAPLEM508A	Manipulate and analyse data within geographic information systems
MSL913002A	Plan and conduct laboratory/ field work
PSPPM402B	Manage simple projects
PSPPCY004	Support policy implementation
SRXGRO002A	Deal with conflict
TAEDEL301A	Provide work skill instruction

Qualification Mapping Information

This qualification is equivalent to AHC40910 Certificate IV in Conservation and Land Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC41016 Certificate IV in Agribusiness

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop agribusiness skills and knowledge within the agriculture and production horticulture industry. They may undertake a range of complex and non-routine tasks related to the administration of an agribusiness. The range of technical skills and knowledge is proficient and leadership of others would be expected.

This qualification is suitable for an Australian Apprenticeship.

Job roles vary across different industry sectors and include:

- Agribusiness administrator

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 1
- Elective Units = 11

Core Unit

Work health and safety

Unit Code	Unit Title
AHCWHS401	Maintain work health and safety processes

Elective Units

- Select at least 9 units from the elective list
- 2 units aligned to AQF levels 3, 4, or 5 may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in rural business and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Agribusiness

Unit Code	Unit Title
AHCAGB301	Keep production records for a primary production business
AHCAGB401	Plan and implement property improvement
AHCAGB402	Analyse and interpret production data
BSBRK401	Identify risk and apply risk management processes

Broadacre cropping

Unit Code	Unit Title
AHCBAC408	Manage agricultural crop production

Business

Unit Code	Unit Title
AHCBUS401	Administer finance, insurance and legal requirements
AHCBUS402	Cost a project
AHCBUS404	Operate within a budget framework
AHCBUS405	Participate in an e-business supply chain
AHCBUS509	Develop and implement business structures and relationships
BSBCMM401	Make a presentation
BSBFIA402	Report on financial activity
BSBHRM405	Support the recruitment, selection and induction of staff

BSBINM401	Implement workplace information system
BSBITU404	Produce complex desktop published documents
BSBLDR403	Lead team effectiveness
BSBRES401	Analyse and present research information
BSBSMB405	Monitor and manage small business operations
BSBSMB406	Manage small business finances

Livestock

Unit Code	Unit Title
AHCLSK501	Manage livestock production

Pest management

Unit Code	Unit Title
AHCPMG411	Ensure compliance with pest legislation

Shearing

Unit Code	Unit Title
AHCSHG406	Prepare shearing team wages

Work

Unit Code	Unit Title
AHCWRK401	Implement and monitor quality assurance procedures
AHCWRK402	Provide information on issues and policies
AHCWRK403	Supervise work routines and staff performance
MSL913002	Plan and conduct laboratory/field work
PSPPM402B	Manage simple projects

PSPPCY004	Support policy implementation
SRXGRO002A	Deal with conflict
TAEDEL301	Provide work skill instruction

Qualification Mapping Information

This qualification is equivalent to AHC41010 Certificate IV in Agribusiness.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC41116 Certificate IV in Irrigation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the technical and supervisory skills and knowledge required to operate as supervisors and specialists within the irrigation industry. It applies to irrigation installation site managers and managers of irrigation systems in the irrigation servicing, horticulture and agriculture industries.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication. However, an individual unit of competency may specify relevant licensing, legislative or regulatory requirements. Specific determination should be sought through the relevant State or Territory.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 1
- Elective Units = 11

Core Units

Unit Code	Unit Title
AHCWHS401	Maintain work health and safety processes

Elective Units

- Select 7 units from Group A
 - Select 2 units from Group A or B
 - 2 units may be selected from Group B or this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in irrigation and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Group A

Unit Code	Unit Title
AHCIRG402	Determine hydraulic parameters for an irrigation system
AHCIRG404	Implement an irrigation-related environmental protection program
AHCIRG408	Schedule irrigations
AHCIRG410	Select and manage pumping systems for irrigation
AHCIRG415	Interpret and apply irrigations designs
AHCIRG426	Evaluate water supply for irrigation
AHCIRG431	Supervise irrigation system installation
AHCIRG432	Supervise irrigation system maintenance
AHCIRG433	Manage irrigation systems
AHCIRG434	Manage surface irrigation systems
AHCIRG422	Manage a moving sprinkler irrigation system
AHCDRG401	Coordinate and supervise installation of an irrigation drainage system
AHCDRG402	Monitor and control irrigation drainage systems
AHCSOL401	Sample soils and interpret results

Group B

Unit Code	Unit Title
AHCBUS402	Cost a project

AHCBUS404	Operate within a budget framework
AHCINF304	Install and terminate extra low voltage wiring systems
AHCIRG303	Measure irrigation delivery system performance
AHCMER407	Provide irrigation sales and service
AHCPMG409	Implement a pest management plan
AHCWRK401	Implement and monitor quality assurance processes
AHCWRK403	Supervise work routines and staff performance
BSBHRM405	Support the recruitment, selection and induction of staff
BSBLDR403	Lead team effectiveness
BSBMGT402	Implement operational plan
BSBSMB406	Manage small business finances
BSBWOR404	Develop work priorities
NWPTRT062	Operate and control reclaimed water irrigation
NWPGEN005	Coordinate and monitor the application of environmental plans and procedures
NWP410C	Coordinate and monitor asset construction and maintenance
NWPIRR033	Coordinate and monitor the operation of irrigation delivery systems
PSPPM402B	Manage simple projects

Qualification Mapping Information

This qualification is equivalent to AHC41112 Certificate IV in Irrigation.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC41316 Certificate IV in Wool Classing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification is a specialist wool classing qualification for wool classers and enables them to apply for registration with AWEX Ltd. as a professional Australian wool classer.

This qualification is suitable for an Australian Apprenticeship.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 14

- Core Units = 14
- Elective Units = 0

Core Units

First Aid

Unit Code	Unit Title
HLTAID003	Provide first aid

Wool

Unit Code	Unit Title
AHCWOL301	Appraise wool using industry descriptions
AHCWOL303	Prepare wool based on its characteristics

AHCWOL304	Prepare fleece wool for classing
AHCWOL305	Prepare skirtings and oddments
AHCWOL307	Document a wool clip
AHCWOL310	Press wool for a clip
AHCWOL311	Perform shed duties
AHCWOL401	Determine wool classing strategies
AHCWOL403	Plan, implement and review wool harvesting and clip preparation
AHCWOL404	Establish work routines and manage wool harvesting and preparation staff
AHCWOL405	Class fleece wool

Work

Unit Code	Unit Title
AHCWRK401	Implement and monitor quality assurance procedures

Work health and safety

Unit Code	Unit Title
AHCWHS401	Maintain work health and safety processes

Qualification Mapping Information

This qualification is not equivalent to AHC41313 Certificate IV in Wool Classing.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC41416 Certificate IV in Seed Production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop higher level skills and knowledge in the seed production industry. It is designed to meet the needs of supervisors or team leaders in the seed production industry.

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 5
- Elective Units = 7

Core Units

Unit Code	Unit Title
AHCSDP401	Plan a seed crop establishment program
AHCSDP402	Supervise seed crop establishment
AHCSDP403	Plan and implement seed crop maintenance
AHCSDP404	Supervise seed crop harvesting
AHCWHS401	Maintain work health and safety processes

Elective Units

- Select 5 units from list below
- 2 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in seed production and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Unit Code	Unit Title
AHCAGB401	Plan and implement property improvement
AHCAGB402	Analyse and interpret production data
AHCCHM401	Develop procedures to minimise risks in the use of chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402A	Plan and implement a chemical use program* AHCCHM303 Prepare and apply chemicals AHCCHM304 Transport and store chemicals
AHCCHM403	Prepare safe operating procedures for calibration of equipment
AHCIRG410	Select and manage pumping systems for irrigation
AHCIRG431	Supervise irrigation system installation
AHCIRG432	Supervise irrigation system maintenance
AHCIRG433	Manage irrigation systems
AHCIRG426	Evaluate water supply for irrigation
AHCMOM401	Conduct major repair and overhaul of machinery and equipment
AHCMOM402	Supervise maintenance of property, machinery and equipment
AHCPMG413	Define the pest problem
AHCPMG507	Develop a regional pest management plan
AHCSOL401	Sample soils and interpret results

AHCSOL402	Develop a soil use map for a property
AHCWRK401	Implement and monitor quality assurance procedures
AHCWRK402	Provide information on issues and policies
AHCWRK403	Supervise work routines and staff performance
BSBRK401	Identify risk and apply risk management processes

Qualification Mapping Information

This qualification is equivalent to AHC41412 Certificate IV in Seed Production.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC41516 Certificate IV in Seed Testing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the roles of senior seed analysts who perform a range of advanced tests on seed in seed laboratories and may supervise the work of seed analysts.

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

Entrants into the Certificate IV in Seed Testing must hold the following units of competency or their equivalent:

- AHCSDT301 Prepare a working sample
- AHCSDT302 Identify seeds
- AHCSDT304 Perform a seed purity analysis
- AHCSDT305 Perform a seed moisture test
- AHCSDT306 Perform a seed germination test
- AHCSDT307 Perform a 'Determination of Other Seeds by Number' test
- AHCWHS301 Contribute to work health and safety processes
- AHCWRK306 Comply with industry quality assurance requirements
- AHCWRK309 Apply environmentally sustainable work practices

Packaging Rules

Total number of units = 18

- Core Units = 9
- Elective Units = 9

Core Units

Unit Code	Unit Title
AHCSDT402	Prepare and maintain a seed reference collection
AHCSDT404	Develop and implement laboratory policy and procedures
AHCSDT406	Undertake internal audits in a seed laboratory
AHCSDT409	Perform a tetrazolium test
AHCSDT410	Perform seed vigour test
AHCSDT411	Perform a 1000 seed weight test
AHCWHS401	Maintain work health and safety processes
AHCWRK401	Implement and monitor quality assurance procedures
AHCWRK403	Supervise work routines and staff performance

Elective Units

- Select 5 units from list below
- 4 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in a seed testing laboratory and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Unit Code	Unit Title
AHCSDT401	Maintain a quarantine approved laboratory
AHCSDT403	Perform an Anguina test on annual ryegrass seed
AHCSDT405	Handle & store quarantinable seeds
AHCSDT407	Perform an endophytic seed test
AHCSDT408	Perform an electrophoresis test on a seed sample
MSL904001	Perform standard calibrations

MSL924001	Process and interpret data
MSL924002	Use laboratory application software
MSL934002	Apply quality system and continuous improvement processes
MSL934003	Maintain and control stocks

Qualification Mapping Information

This qualification is equivalent to AHC41512 Certificate IV in Seed Testing.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC41616 Certificate IV in Organic Farming

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop skills and knowledge within the organic farming and general agriculture industry. It is designed to meet the needs of supervisors or team leaders working in the organic agriculture industry.

This qualification is suitable for people currently working or who wish to find employment on an organic farming enterprise.

Job roles and titles will vary. Possible job titles relevant to this Qualification include:

- Organic farm team leader
- Organic farm supervisor
- Organic farmer

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 1
- Elective Units = 11

Core Unit

Work health and safety

Unit Code	Unit Title
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AHCWHS401	Maintain work health and safety processes
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Elective Units

- Select 4 units from Group A
- Select 5 units from Group A or Group B
- 2 units aligned to AQF levels 3, 4, or 5 may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in agriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Business

Unit Code	Unit Title
BSBSMB405	Monitor and manage small business operations

Organic farming

Unit Code	Unit Title
AHCORG401	Manage biodynamic production
AHCORG402	Manage organic livestock production
AHCORG403	Manage organic soil improvement
AHCORG404	Arrange selling through community based marketing
AHCORG405	Implement sustainable practices in the organic farm based business
AHCORG406	Oversee compliance with an organic certification scheme
AHCORG407	Manage a landless organic production system
AHCORG408	Manage on-farm composting

Pest Management

Unit Code	Unit Title
AHCPMG410	Implement the pest monitoring and evaluation plan

Group B**Agribusiness**

Unit Code	Unit Title
AHCAGB401	Plan and implement property improvement
AHCAGB402	Analyse and interpret production data

Beekeeping

Unit Code	Unit Title
AHCBEK301	Manage honey bee swarms
AHCBEK306	Manage pests and disease within a honey bee colony

Biosecurity

Unit Code	Unit Title
AHCBIO403	Plan and implement a farm or enterprise biosecurity plan

Broadacre cropping

Unit Code	Unit Title
AHCBAC401	Manage pastures for livestock production
AHCBAC402	Plan a pasture establishment program
AHCBAC403	Supervise agricultural crop establishment
AHCBAC404	Plan and implement agricultural crop maintenance
AHCBAC405	Supervise agricultural crop harvesting

Business

Unit Code	Unit Title
AHCBUS401	Administer finance, insurance and legal requirements
AHCBUS402	Cost a project
AHCBUS404	Operate within a budget framework
AHCBUS405	Participate in an e-business supply chain
BSBRISK401	Identify risk and apply risk management processes
BSBSMB406	Manage small business finances

Chemicals

Unit Code	Unit Title
AHCCHM402	Plan and implement a chemical use program * <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>

Irrigation

Unit Code	Unit Title
AHCIRG402	Determine hydraulic parameters for an irrigation system
AHCIRG404	Implement an irrigation-related environmental protection system
AHCIRG408	Schedule irrigations

Livestock

Unit Code	Unit Title
AHCLSK402	Develop livestock feeding plans
AHCLSK404	Implement and monitor animal welfare programs
AHCLSK405	Implement intensive production systems

AHCLSK406	Oversee animal marking operations
AHCLSK407	Plan and monitor intensive production systems
AHCLSK409	Supervise animal health programs
AHCLSK411	Supervise natural mating of livestock
AHCLSK412	Arrange livestock purchases
AHCLSK414	Arrange transport for farm produce or livestock
AHCLSK416	Identify and select animals for breeding

Nursery

Unit Code	Unit Title
AHCNSY402	Plan a propagation program

Production horticulture

Unit Code	Unit Title
AHCPHT402	Develop a crop regulation program
AHCPHT404	Implement and monitor a horticultural crop harvesting program

Soils and media

Unit Code	Unit Title
AHCSOL401	Sample soils and interpret results
AHCSOL402	Develop a soil use map for a property

Work

Unit Code	Unit Title
AHCWRK401	Implement and monitor quality assurance procedures
AHCWRK403	Supervise work routines and staff performance

Qualification Mapping Information

This qualification is equivalent to AHC41612 Certificate IV in Organic Farming.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC41716 Certificate IV in Pest Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides occupation outcomes for supervisors and senior field officers in the pest management sector. The qualification covers those who work in weed management as well as vertebrate pest management in a range of settings including conservation, land management, agriculture, horticulture and parks and gardens.

Supervisors and senior field officers may undertake the following job functions:

- preparing and carrying out pest management programs
- participating in strategic invasive species management practices
- completing and assessing pest management programs

Some job functions covered by this qualification may require occupational licencing or certification. Specific determination should be sought through the relevant State or Territory agency.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 4
- Elective Units = 8

Core Units

Unit Code	Unit Title
AHCWHS401	Maintain work health and safety processes

AHCPMG409	Implement a pest management plan
AHCPMG412	Develop a pest management plan
AHCPMG413	Define the pest problem

Elective Units

- Select 3 units from Group A
- Select 3 units from Group A or Group B
- A maximum of 2 units may be selected from the elective lists of Certificate III or above of this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in pest management and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Biosecurity

Unit Code	Unit Title
AHCBER402	Carry out field surveillance for a specific emergency disease or plant pest

Chemicals

Unit Code	Unit Title
AHCCHM401	Develop procedures to minimise risks in the use of chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>

Pest Management

Unit Code	Unit Title
BSBPMG418	Apply project stakeholder engagement techniques
AHCPMG410	Implement the pest monitoring and evaluation plan
AHCPMG411	Ensure compliance with pest legislation

Group B

Business

Unit Code	Unit Title
AHCBUS402	Cost a project
AHCBUS404	Operate within a budget framework

Community Coordination and Facilitation

Unit Code	Unit Title
AHCCCF405	Develop community networks
AHCCCF408	Promote community programs

Machinery

Unit Code	Unit Title
AHCMOM402	Supervise maintenance of property machinery and equipment

Plants

Unit Code	Unit Title
AHCPCM502	Collect and classify plants

Pest Management

Unit Code	Unit Title
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AHCPMG306	Determine pest control techniques
AHCPMG307	Apply animal trapping techniques
AHCPMG309	Apply pest animal control techniques
AHCPMG305	Survey pests
AHCNAR306	Conduct photography for fieldwork
AHCPMG414	Apply predator trapping techniques

Work

Unit Code	Unit Title
AHCWRK403	Supervise work routine and staff performance
CHCCDE002	Develop and implement community programs
FWPCOT3259	Operate a four wheel drive on unsealed roads
FWPCOT3202	Navigate in remote or trackless areas
HLTAID003	Provide first aid
HLTAID005	Provide first aid in remote situations
LGACOM404B	Establish cooperative arrangements with other organisations
PSPPM402B	Manage simple projects
PSPREG003	Exercise regulatory powers
PSPREG008	Act on non-compliance
TLIR4002	Source goods/services and evaluate contractors

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC41916 Certificate IV in Arboriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides occupation outcomes with a range of specialised knowledge and skills to undertake skilled work and as a pathway for further learning required for supervising arborists in the arboriculture industry.

This qualification is suitable for an Australian Apprenticeship.

Occupational licensing, legislative or certification requirements may apply to this qualification in some jurisdictions. Specific determination should be sought through the relevant State or Territory.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 15

- Core Units = 10
- Elective Units = 5

Core Units

Unit Code	Unit Title
BSBWHS404	Contribute to WHS hazard identification, risk assessment and risk control
AHCARB401	Verify pruning specifications
AHCARB402	Supervise and audit tree operations
AHCARB403	Perform a ground-based tree defect evaluation

AHCARB404	Conduct a safety audit
TAEASS402	Assess competence
BSBITU404	Produce complex desktop published documents
AHCBUS401	Administer finance, insurance and legal requirements
AHCBUS402	Cost a project
AHCPCM402	Develop a soil health and plant nutrition program

Elective Units

- Select at least 3 units from the elective list
- An additional 2 units may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in Arboriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Unit Code	Unit Title
AHCARB405	Perform geospatial data collection
AHCCHM401	Develop procedures to minimise risks in the use of chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCBUS504	Prepare estimates, quotes and tenders
CPPSEC4008A	Prepare a detailed tender
BSBSMB405	Monitor and manage small business operations
TAEASS401	Plan assessment activities and processes

TAEASS403	Participate in assessment validation
AHCPCM401	Recommend plants and cultural practices
CPCDDO3011A	Perform dogging
AHCARB302	Inspect trees for access and work
AHCARB303	Perform pruning operations* <i>FWPCOT2237 Maintain chainsaws</i> <i>AND</i> <i>FWPCOT2239 Trim and cut felled trees</i> <i>OR</i> <i>FWPCOT3238 Operate a pole saw</i>

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC42016 Certificate IV in Landscape

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification allows individuals to develop post-trade skills and knowledge to become specialists within the landscape industry. It is designed to meet the needs of supervisors or team leaders.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 1
- Elective Units = 11

Core Units

Unit Code	Unit Title
AHCWHS401	Maintain work health and safety processes

Elective Units

- Select 8 units listed from the either Group A or Group B below

- 3 units may be selected from either Group A or Group B or from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in the landscape industry and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Group A: Landscape Designstream

Unit Code	Unit Title
AHCBUS402	Cost a project
AHCBUS404	Operate within a budget framework
AHCCCF402	Report on project
AHCIRG431	Supervise irrigation system installation
AHCPCM303	Identify plant specimens
AHCPCM401	Recommend plants and cultural practices
AHCPGD401	Design plant displays
AHCPGD402	Plan a plant establishment program
AHCSOL401	Sample soils and interpret results
BSBDES305	Source and apply information on the history and theory of design
BSBDES403	Develop and extend design skills and practice
BSBRES401	Analyse and present research information
CUAACD303	Produce technical drawings
TLIR4002	Source goods/services and evaluate contractors

Group B: Landscape Contracting Stream

Unit Code	Unit Title
AHCBUS402	Cost a project
AHCBUS404	Operate within a budget framework
AHCCCF402	Report on project

AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCIRG431	Supervise irrigation system installation
AHCLSC401	Supervise landscape project works
AHCLSC502	Manage landscape projects
AHCMOM402	Supervise maintenance of machinery and equipment
AHCNAR401	Supervise natural area restoration works
AHCPCM401	Recommend plants and cultural practices
AHCPGD402	Plan a plant establishment program
AHCSOL401	Sample soils and interpret results
AHCWRK402	Provide information on issues and policies
AHCWRK403	Supervise work routines and staff performance
AHCWRK401	Implement and monitor quality assurance procedures
BSBSMB404	Undertake small business planning
TLIR4002	Source goods/services and evaluate contractors

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC42116 Certificate IV in Permaculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification relates to individuals who work as project supervisors and designers for private clients or organisations. They require high level permaculture design skills, and knowledge in a broad range of areas in keeping with permaculture's multi-disciplinary nature. They may be involved in supervising individuals and teams of people on urban and rural work sites and in community projects.

The qualification is suited to learners who wish to work at the supervisory level within permaculture design projects, and may involve the supervision of others and working with people of diverse backgrounds and abilities.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 5
- Elective Units = 7

Core Units

Unit Code	Unit Title
AHCPER401	Provide advice on permaculture principles and practices
AHCPER404	Plan and implement permaculture works

AHCPER405	Select appropriate technology for a permaculture system
AHCPER406	Identify and analyse bioregional characteristics and resources
AHCPER413	Evaluate suitability of species as solutions for permaculture applications

Elective Units

- Select 1 units from Group A
 - Select 4 units from Group B
 - Select 2 units from Group B or C
 - 1 unit may be selected from Group B or this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in Permaculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Group A

Unit Code	Unit Title
AHCPER402	Design a rural permaculture system
AHCPER403	Design an urban permaculture system

Group B

Unit Code	Unit Title
AHCPER402	Design a rural permaculture system
AHCPER403	Design an urban permaculture system
AHCPER407	Design harvesting and storage systems for permaculture products
AHCPER408	Implement and monitor animal health and welfare programs for a permaculture system
AHCPER409	Manage a permaculture seed bank
AHCPER410	Recommend approaches for sustainable community and bioregional development
AHCPER411	Operate within a sustainable community and bioregional development

	program
AHCPER412	Operate within a permaculture aid and development program
AHCPER307	Establish a rural permaculture system
AHCPER308	Establish an urban permaculture system

Group C

Unit Code	Unit Title
AHCBUS402	Cost a project
AHCBUS404	Operate within a budget framework
AHCCCF405	Develop community networks
AHCORG402	Manage organic livestock production
AHCORG403	Manage organic soil improvement
AHCORG404	Arrange selling through community based selling
AHCSAW401	Set out conservation earthworks
AHCSOL402	Develop a soil use map for a property
TAEDEL301	Provide work skill instruction

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC42216 Certificate IV in Shearing Contracting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification focuses on the skills and knowledge required to run a shearing contracting business. Industry expects that individuals with this qualification will take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

Job roles and titles will vary. Possible job title relevant to this Qualification include:

- Shearing contractor

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 10
- Elective Units = 2

Core Units

Delivery and facilitation

Unit Code	Unit Title
TAEDEL301	Provide work skill instruction
TAEDEL404	Mentor in the workplace

First Aid

Unit Code	Unit Title
HLTAID003	Provide first aid

Livestock

Unit Code	Unit Title
AHCLSK404	Implement and monitor animal welfare programs

Shearing

Unit Code	Unit Title
AHCSHG403	Account for shearing shed supplies
AHCSHG405	Arrange employment for shearing operation
AHCSHG406	Prepare shearing team wages

Small and Micro Business

Unit Code	Unit Title
BSBSMB401	Establish legal and risk management requirements of small business
BSBSMB402	Plan small business finances
BSBSMB404	Undertake small business planning

Work

Unit Code	Unit Title
AHCWRK403	Supervise work routines and staff performance

Work health and safety

Unit Code	Unit Title
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AHCWHS401	Maintain work health and safety processes
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Elective Units

- Select at least 1 unit from the elective list
- 1 unit may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in the shearing contracting sector and must be chosen to ensure the integrity of the qualification outcome at AQF level 4

Shearing

Unit Code	Unit Title
AHCSHG401	Apply advanced shearing techniques
AHCSHG402	Conduct equipment experting for machine shearing

Small and Micro Business

Unit Code	Unit Title
BSBSMB403	Market the small business

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC50116 Diploma of Agriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the role of personnel working on farms and stations who manage enterprise production units and employees and sole operators of agribusinesses who provide crop production advice and services to production enterprises.

Industry expects individuals with this qualification will take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

Job roles vary across different industry sectors. Possible job titles relevant to this qualification include:

- Farm production manager
- Production unit manager
- Agronomist
- Station/property manager.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 0
- Elective Units = 10

Elective Units

- Select 5 units from Group A

- Select 3 units from Group A or Group B
- 2 units aligned to AQF level 4 or above may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in agriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Agribusiness

Unit Code	Unit Title
AHCAGB501	Develop climate risk management strategies
AHCAGB505	Develop a whole farm plan

Broadacre cropping

Unit Code	Unit Title
AHCBAC408	Manage agricultural crop production
AHCBAC502	Manage forage conservation
AHCBAC503	Manage integrated crop and pasture production
AHCBAC504	Plan and manage a stored grain program
AHCBAC505	Plan and manage long-term weed, pest or disease control in crops
AHCBAC506	Manage the harvest of crops
AHCBAC507	Develop production plans for crops
AHCBAC508	Apply plant biology to agronomic practices

Business

Unit Code	Unit Title
AHCBUS501	Manage staff

AHCBUS502	Market products and services
AHCBUS506	Develop and review a business plan
AHCBUS507	Monitor and review business performance

Livestock

Unit Code	Unit Title
AHCLSK501	Manage livestock production
AHCLSK502	Arrange marketing of livestock
AHCLSK503	Develop and implement a breeding strategy
AHCLSK504	Develop livestock health and welfare strategies
AHCLSK505	Develop production plans for livestock
AHCLSK507	Plan, monitor and evaluate strategies to improve livestock through genetics

Organic production

Unit Code	Unit Title
AHCORG501	Develop an organic management plan
AHCORG502	Prepare the enterprise for organic certification

Soils and media

Unit Code	Unit Title
AHCSOL501	Monitor and manage soils for production
AHCSOL502	Manage soils to enhance sustainability
AHCSOL503	Manage erosion and sediment control
AHCSOL504	Develop and manage a plan to reclaim land affected by salinity

Work health and safety

Unit Code	Unit Title
AHCWHS501	Manage work health and safety processes

Group B

Agribusiness

Unit Code	Unit Title
AHCAGB502	Plan and manage infrastructure requirements
AHCAGB503	Plan and monitor production processes
AHCAGB504	Plan production for the whole business
AHCAGB506	Manage application technology
AHCAGB507	Select and use agricultural technology
AHCAGB508	Improve agricultural sustainability using renewable energy and recycle system/s
AHCAGB509	Select and implement a Geographic Information System (GIS) for sustainable agricultural systems
AHCAGB510	Implement the introduction of biotechnology into the production system
AHCAGB511	Develop and manage a plan for sustainable production reflecting sustainable production principles
BSBWOR501	Manage personal work priorities and professional development

Business

Unit Code	Unit Title
AHCBUS503	Negotiate and monitor contracts
AHCBUS504	Prepare estimates, quotes and tenders
AHCBUS508	Prepare and monitor budgets and financial reports
BSBFIM501	Manage budgets and financial plans
BSBHRM506	Manage recruitment selection and induction processes

BSBRES401	Analyse and present research information
BSBRSK501	Manage risk
TLIL5019	Implement and monitor transport logistics
TLIR4002	Source goods/services and evaluate contractors
TLIR4003	Negotiate a contract

Chemicals

Unit Code	Unit Title
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM501	Develop and manage a chemical use strategy

Deer

Unit Code	Unit Title
AHCDER401	Handle, store and grade deer velvet
AHCDER501	Comply with deer industry national velvet accreditation requirements
AHCDER502	Harvest deer velvet

Drainage

Unit Code	Unit Title
AHCDRG501	Design drainage systems

Livestock

Unit Code	Unit Title
AHCLSK506	Design livestock effluent systems

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM501	Manage machinery and equipment
AHCMOM502	Implement a machinery management system

Merchandising and sales

Unit Code	Unit Title
AHCMER501	Develop a sales strategy for rural products

Natural area restoration

Unit Code	Unit Title
AHCNAR506	Develop and implement sustainable land use strategies

Organic production

Unit Code	Unit Title
AHCORG401	Manage biodynamic production
AHCORG402	Manage organic livestock production
AHCORG403	Manage organic soil improvement

Plants

Unit Code	Unit Title
AHCPCM505	Conduct environmental and food safety risk assessment

Shearing

Unit Code	Unit Title
AHCSHG405	Arrange employment for shearing operations

Sustainability

Unit Code	Unit Title
AHCSUS501	Develop and manage a plan for sustainable supply and use of water on a farm
AHCSUS502	Develop and manage a plan to improve biodiversity on a farm

Water

Unit Code	Unit Title
AHCWAT502	Manage water systems

Work

Unit Code	Unit Title
AHCWRK501	Plan, implement and review a quality assurance program
AHCWRK502	Collect and manage data
AHCWRK504	Assess new industry developments
AHCWRK505	Manage trial and research material
AHCWRK509	Provide specialist advice to clients
AHCWRK511	Develop workplace policy and procedures for sustainability

Qualification Mapping Information

This qualification is equivalent to AHC50110 Diploma of Agriculture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC50216 Diploma of Pork Production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides an occupational outcome for personnel working on piggeries who manage enterprise production units. The pork industry expects that graduates from this qualification will be able to perform a range of tasks associated with a person performing the job role of a piggery manager.

Possible job roles relevant to this qualification include:

- Production unit manager

The pork industry expects that graduates from this qualification will be able to perform tasks involving the analysis and synthesis of information, design and communication of solutions to complex problems, organise the work of self and others, and take broad responsibility for the quality of the work of others (teams).

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 2
- Elective Units = 8

Core Units

Livestock

Unit Code	Unit Title
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AHCLSK504	Develop livestock health and welfare strategies
AHCLSK505	Develop production plans for livestock

Elective Units

- Select at least 6 units from the elective list
- 2 units aligned to AQF level 4 or above may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in pork production and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Agribusiness

Unit Code	Unit Title
AHCAGB504	Plan production for the whole business
AHCAGB505	Develop a whole farm plan
AHCAGB604	Analyse business performance

Business

Unit Code	Unit Title
AHCBUS501	Manage staff
AHCBUS508	Prepare and monitor budgets and financial reports

Human Resource Management

Unit Code	Unit Title
BSBHRM506	Manage recruitment selection and induction processes

Livestock

Unit Code	Unit Title
AHCLSK405	Implement intensive production systems

AHCLSK416	Identify and select animals for breeding
AHCLSK501	Manage livestock production
AHCLSK503	Develop and implement a breeding strategy

Pork production

Unit Code	Unit Title
AHCPRK401	Implement a feeding strategy for pig production

Work

Unit Code	Unit Title
AHCWRK502	Collect and manage data
AHCWRK503	Prepare reports

Qualification Mapping Information

This qualification is not equivalent to AHC50210 Diploma of Pork Production.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC50316 Diploma of Production Horticulture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

The Diploma of Production Horticulture reflects the role of personnel working on production horticulture farms.

The qualification can be contextualised for a tree cropping, vegetable, berry or flower production or mushroom production context as a job focus or, in the case of mixed enterprises, both.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 0
- Elective Units = 10

Elective Units

- Select 3 units from Group A
- Select 5 units from Group A or B
- 2 units aligned to AQF level 4 or above may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in production horticulture and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Group A

Unit Code	Unit Title
AHCPCM501	Diagnose plant health problems
AHCPHT502	Develop a horticultural production plan
AHCPHT503	Manage a controlled growing environment
AHCHYD501	Develop a plan for a hydroponic system
AHCSOL501	Monitor and manage soils for production
AHCWHS501	Manage work health and safety processes

Group B

Unit Code	Unit Title
AHCBER501	Manage active operational emergency disease or plant pest sites
AHCBER502	Manage the implementation of an emergency disease or plant pest control program
AHCBUS501	Manage staff
AHCBUS502	Market products and services
AHCBUS503	Negotiate and monitor contracts
AHCBUS506	Develop and review a business plan
AHCBUS507	Monitor and review business performance
AHCBUS508	Prepare and monitor budgets and financial reports
AHCCHM501	Develop and manage a chemical use strategy
AHCDRG501	Design drainage systems
AHCHYD501	Develop a plan for a hydroponic system
AHCIRG502	Design irrigation system maintenance and monitoring programs
AHCIRG503	Design irrigation, drainage and water treatment systems
AHCIRG504	Develop an irrigation and drainage management plan
AHCMOM501	Manage machinery and equipment

AHCMOM502	Implement a machinery management system
AHCORG501	Develop an organic management plan
AHCORG502	Prepare the enterprise for organic certification
AHCPCM505	Conduct environment and food safety risk assessment of plant nutrition and soil fertility programs
AHCWAT501	Design water treatment systems
AHCWAT502	Manage water systems
BSBR501	Manage risk
TLIL5019	Implement and monitor transport logistics
TLIR4002	Source goods/services and evaluate contractors
TLIR4003	Negotiate a contract

Qualification Mapping Information

This qualification is equivalent to AHC50310 Diploma of Production Horticulture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC50416 Diploma of Horticulture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

The Diploma of Horticulture reflects the role of those who manage amenity horticultural enterprises where a range of skills and knowledge across the breadth of the industry is required or personnel working in horticulture at a level requiring higher technical skills.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 0
- Elective Units = 10

Elective Units

- Select 8 units from electives listed below
- 2 units aligned to AQF level 4 or above may be selected from elective units below or from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in horticulture and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Unit Code	Unit Title
AHCARB601	Examine and assess trees

AHCARB502	Identify, select and specify trees
AHCARB602	Diagnose tree diseases
AHCARB504	Develop a tree protection program
AHCARB505	Document and audit tree work
AHCBUS501	Manage staff
AHCBUS502	Market products and services
AHCBUS503	Negotiate and monitor contracts
AHCBUS504	Prepare estimates, quotes and tenders
AHCBUS508	Prepare and monitor budgets and financial reports
AHCCHM501	Develop and manage a chemical use strategy
AHCDES501	Design sustainable landscapes
AHCDES502	Prepare a landscape project design
AHCDES503	Assess landscape sites
AHCHYD501	Develop a plan for a hydroponic system
AHCIRG501	Audit irrigation systems
AHCIRG502	Design irrigation system maintenance and monitoring programs
AHCIRG503	Design irrigation, drainage and water treatment systems
AHCIRG504	Develop an irrigation and drainage management plan
AHCIRG505	Establish and maintain an irrigation-related environmental protection program
AHCLPW501	Develop a management plan for a designated area
AHCLSC501	Survey and establish site levels
AHCLSC502	Manage landscape projects
AHCLSC503	Manage a tree transplanting program
AHCMOM501	Manage machinery and equipment

AHCMOM502	Implement a machinery management system
AHCPCM501	Diagnose plant health problems
AHCPCM502	Collect and classify plants
AHCPCM505	Conduct environment and food safety risk assessment of plant nutrition and soil fertility programs
AHCPGD501	Manage plant cultural practices
AHCPGD502	Plan the restoration of parks and gardens
AHCPGD503	Manage parks and reserves
AHCPGD504	Develop and implement a streetscape management plan
AHCPGD505	Conduct comprehensive inspection of park facilities
AHCPHT502	Develop a horticultural production plan
AHCPHT503	Manage a controlled growing environment
AHCPMG413	Define the pest problem
AHCPMG507	Develop a regional pest management plan
AHCPMG508	Develop a system to monitor and evaluate the pest management plan
AHCPMG510	Develop a pest survey strategy
AHCSOL501	Monitor and manage soils for production
AHCTRF501	Plan the establishment of sports turf playing surfaces
AHCWAT501	Design water treatment systems
AHCWAT502	Manage water systems
AHCWHS501	Manage work health and safety processes
AHCWRK501	Plan, implement and review a quality assurance program
AHCWRK502	Collect and manage data
AHCWRK503	Prepare reports
AHCWRK504	Assess new industry developments

AHCWRK505	Manage trial and/or research material
AHCWRK507	Implement professional practice
AHCWRK508	Interpret legislation
AHCWRK509	Provide specialist advice to clients
AHCWRK510	Audit site operations
AHCWRK511	Develop workplace policy and procedures for sustainability
BSBFIM501	Manage budgets and financial plans
BSBHRM506	Manage recruitment selection and induction processes
BSBRES401	Analyse and present research information
CPPWMT5043A	Develop and implement an environmental management strategy
CPPWMT5045A	Develop site safety plans
PSPPM502B	Manage complex projects
PSPPM503B	Close complex projects
TLIL5019	Implement and monitor transport logistics
TLIR4002	Source goods/services and evaluate contractors
TLIR4003	Negotiate a contract

Qualification Mapping Information

This qualification is equivalent to AHC50410 Diploma of Horticulture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC50516 Diploma of Arboriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides occupation outcomes with integrated knowledge and skills for skilled or paraprofessional work and as a pathway for further learning required for consulting arborists in the arboriculture industry.

Occupational licensing, legislative or certification requirements may apply to this qualification in some jurisdictions. Specific determination should be sought through the relevant State or Territory.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 7
- Elective Units = 3

Core Units

Unit Code	Unit Title
AHCARB601	Examine and assess trees* <i>AHCARB403 Perform a ground-based tree defect evaluation*</i> <i>AHCARB302 Inspect trees for access and work*</i> <i>AHCARB313 Identify trees</i>

AHCARB502	Identify, select and specify trees
AHCARB602	Diagnose tree diseases
AHCARB504	Develop an arboricultural impact assessment report* <i>AHCARB502 Identify, select and specify trees</i>
AHCARB505	Document and audit tree work
AHCARB506	Prepare arborist reports
AHCWRK508	Interpret legislation

Elective Units

- Select at least 1 unit from the elective list
- An additional 2 units may be selected from the elective list, or from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in Arboriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Unit Code	Unit Title
AHCARB403	Perform a ground-based tree defect evaluation* <i>AHCARB302 Inspect trees for access and work**</i> <i>AHCARB313 Identify trees</i>
AHCARB507	Generate tree plans using computer-aided design software
AHCPCM601	Develop and implement a plant health management strategy
AHCNRM507	Manipulate and analyse data within geographic information systems
AHCWRK502	Collect and manage data
AHCWRK504	Assess new industry developments
AHCWRK505	Manage trial and research material
AHCWRK507	Implement professional practice

AHCWRK510	Audit site operations
AHCWRK511	Develop workplace policy and procedures for sustainability
AHCPGD504	Develop and implement a streetscape management plan
AHCBUS504	Prepare estimates, quotes and tenders
BSBCOM602	Develop and create compliance requirements
BSBITU404	Produce complex desktop published documents
LGAPLEM512A	Provide geographic information systems data

Qualification Mapping Information

This qualification is not equivalent to AHC50510 Diploma of Arboriculture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC50616 Diploma of Landscape Design

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This is a specialist qualification for landscape designers.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 4
- Elective Units = 8

Core Units

Unit Code	Unit Title
AHCDES501	Design sustainable landscapes
AHCDES502	Prepare a landscape project design
AHCDES503	Assess landscape sites
AHCDES504	Design for construction of landscape features

Elective Units

- Select 5 units from list below
 - 3 units aligned to AQF level 4 or above may be selected from this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in landscape design and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Unit Code	Unit Title
AHCARB502	Identify, select and specify trees
AHCBUS503	Negotiate and monitor contracts
AHCBUS504	Prepare estimates, quotes and tenders
BSBDES501	Implement design solutions
BSBDES502	Establish, negotiate and refine a design brief
CUAACD302	Produce computer-aided drawings
AHCPER401	Provide advice on permaculture principles and practices
AHCPER403	Design an urban permaculture system
AHCPER404	Plan and implement permaculture works
AHCPER505	Plan and supervise the implementation of permaculture project works
AHCLSC501	Survey and establish site levels
AHCLSC502	Manage landscape projects
AHCPCM503	Specify plants for landscapes
AHCPCM504	Design a specialised landscape
AHCWRK503	Prepare reports
AHCWRK507	Implement professional practice
AHCWRK508	Interpret legislation
AHCWRK509	Provide specialist advice to clients
AHCWRK510	Audit site operations

Qualification Mapping Information

This qualification is equivalent to AHC50610 Diploma of Landscape Design.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC50716 Diploma of Parks and Gardens Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

The Diploma of Parks and Gardens Management reflects the role of those who manage private parks and gardens or personnel working in local government as parks managers.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 5
- Elective Units = 7

Core Units

Unit Code	Unit Title
AHCBUS501	Manage staff
AHCBUS504	Prepare estimates, quotes and tenders
AHCPGD503	Manage parks and reserves
AHCPGD504	Develop and implement a streetscape management plan
AHCTRF501	Plan the establishment of sports turf playing surfaces

Elective Units

- Select 5 units from list below
- 2 units aligned to AQF level 4 or above may be selected from elective units below or from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in parks and gardens and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Unit Code	Unit Title
AHCPGD501	Manage plant cultural practices
AHCARB601	Examine and assess trees
AHCARB502	Identify, select and specify trees
AHCARB602	Diagnose tree diseases
AHCARB504	Develop an arboricultural impact assessment report
AHCARB505	Document and audit tree work
AHCBUS503	Negotiate and monitor contracts
AHCCHM501	Develop and manage a chemical use strategy
AHCIRG501	Audit irrigation systems
AHCIRG502	Design irrigation system maintenance and monitoring programs
AHCIRG503	Design irrigation, drainage and water treatment systems
AHCIRG504	Develop an irrigation and drainage management plan
AHCLSC501	Survey and establish site levels
AHCLSC502	Manage landscape projects
AHCLSC503	Manage a tree transplanting program
AHCWHS501	Manage work health and safety processes
AHCPCM501	Diagnose plant health problems
AHCPCM502	Collect and classify plants
AHCPCM503	Specify plants for landscapes

AHCPCM504	Design and maintain a specialised landscape
AHCPGD502	Plan the restoration of parks and gardens
AHCPGD505	Conduct comprehensive inspection of park facilities
AHCWRK511	Develop workplace policy and procedures for sustainability
BSBFIM501	Manage budgets and financial plans
BSBHRM506	Manage recruitment selection and induction processes
TLIR4002	Source goods/services and evaluate contractors
TLIR4003	Negotiate a contract

Qualification Mapping Information

This qualification is equivalent to AHC50710 Diploma of Parks and Gardens Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC50816 Diploma of Production Nursery Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

The Diploma of Production Nursery Management reflects the role of those who manage commercial production nursery enterprises.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 6
- Elective Units = 4

Core Units

Unit Code	Unit Title
AHCIRG501	Audit irrigation systems
AHCMOM501	Manage machinery and equipment
AHCPCM501	Diagnose plant health problems
AHCPCM506	Develop an integrated pest management program
AHCPHT502	Develop a horticultural production plan

AHCWAT502	Manage water systems
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Elective Units

- Select 2 units from list below
- 2 units aligned to AQF level 4 or above may be selected from the elective list below or from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in the management of nursery production and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Unit Code	Unit Title
AHCCHM501	Develop and manage a chemical use strategy
AHCMOM502	Implement a machinery management system
AHCPCM502	Collect and classify plants
AHCPHT503	Manage a controlled growing environment
AHCPMG413	Define the pest problem.
AHCPMG507	Develop a regional pest management plan
HCPMG508	Develop a system to monitor and evaluate the pest management plan
AHCPMG510	Develop a pest survey strategy
AHCSOL501	Monitor and manage soils for production
AHCWAT501	Design water treatment systems
AHCWHS501	Manage work health and safety processes
AHCWRK501	Plan, implement and review a quality assurance program
AHCWRK502	Collect and manage data
AHCWRK503	Prepare reports
AHCWRK505	Manage trial and research material
AHCWRK507	Implement professional practice
AHCWRK508	Interpret legislation

AHCWRK509	Provide specialist advice to clients
AHCWRK510	Audit site operations
BSBSMB405	Monitor and manage small business operations
PSPPM502B	Manage complex projects
PSPPM503B	Close complex projects
SIRRINV001	Receive and handle retail stock
SIRXPRO007A	Improve supply and distribution chains

Qualification Mapping Information

This qualification is equivalent to AHC50810 Diploma of Production Nursery Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC50916 Diploma of Retail Nursery Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

The Diploma of Retail Nursery Management reflects the role of those who manage garden centres, retail nurseries and plant sales outlets.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 0
- Elective Units = 10

Elective Units

- Select 3 units from Group A
- Select 5 units from Group A or B
- 2 units aligned to AQF level 4 or above may be selected from elective units below or from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in retail nursery management and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Group A

Unit Code	Unit Title
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AHCPCM501	Diagnose plant health problems
AHCPCM502	Collect and classify plants
AHCWHS501	Manage work health and safety processes
BSBCUS501	Manage quality customer service
SIRXCLM402	Manage store facilities
SIRRINV001	Receive and handle retail stock
SIRXSLS406	Manage sales and service delivery

Group B

Unit Code	Unit Title
AHCCHM501	Develop and manage a chemical use strategy
AHCIRG502	Design irrigation system maintenance and monitoring programs
AHCMER501	Develop a sales strategy for rural products
AHCPHT503	Manage a controlled growing environment
AHCPMG507	Develop a regional pest management plan
AHCSOL501	Monitor and manage soils for production
AHCWAT502	Manage water systems
AHCWRK501	Plan, implement and review a quality assurance program
AHCWRK502	Collect and manage data
AHCWRK503	Prepare reports
AHCWRK505	Manage trial and research material
AHCWRK509	Provide specialist advice to clients
BSBSMB405	Monitor and manage small business operations
SIRXMER004A	Manage merchandise and store presentation
SIRXMPR001A	Profile a retail market

SIRXPRO007A	Improve supply and distribution chains
SIRXRSK404	Control store security

Qualification Mapping Information

This qualification is equivalent to AHC50910 Diploma of Retail Nursery Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC51016 Diploma of Sports Turf Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

The Diploma of Sports Turf Management applies to curators, golf course superintendents, sports turf managers, senior bowling greenkeepers and turf consultants.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

Entrants must have completed the Certificate III in Sports Turf Management by course work or by Recognition of Prior Learning or an equivalent trade level qualification in green keeping or turf management.

Packaging Rules

Total number of units = 10

- Core Units = 4
- Elective Units = 6

Core Units

Unit Code	Unit Title
AHCCHM501	Develop and manage a chemical use strategy
AHCPCM501	Diagnose plant health problems
AHCSOL501	Monitor and manage soils for production
AHCTRF501	Plan the establishment of sports turf playing surfaces

Elective Units

- Select 4 units from the list below
- 2 units may be selected from the elective units or from units packaged in Certificate IV or above from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in sports turf management and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Unit Code	Unit Title
AHCBUS501	Manage staff
AHCBUS508	Prepare and monitor budgets and financial reports
AHCDRG501	Design drainage systems
AHCIRG502	Design irrigation system maintenance and monitoring programs
AHCLSC502	Manage landscape projects
AHCMOM501	Manage machinery and equipment
AHCPCM601	Develop and implement a plant health management strategy
AHCPMG508	Develop a system to monitor and evaluate the pest management plan
AHCTRF502	Manage sports turf renovation programs
AHCTRF503	Develop sports turf management programs
AHCTRF504	Manage sports turf facility assets
AHCWHS501	Manage work health and safety processes
AHCWRK505	Manage trial and research material
BSBHRM506	Manage recruitment, selection and induction processes
SRXGOV004B	Work effectively with the Board of an organisation

Qualification Mapping Information

This qualification is equivalent to AHC51010 Diploma of Sports Turf Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC51116 Diploma of Conservation and Land Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

The Diploma of Conservation and Land Management reflects the role of personnel working in management positions with technical level skills in conservation and land management roles.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 0
- Elective Units = 10

Elective Units

- Select at least 4 units from Group A
- Select at least 4 units from Group A or Group B
- A maximum of 2 units may be selected from the elective list of a Certificate IV or above of this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in Conservation and Land Management and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Fire

Unit Code	Unit Title
AHCFIR502	Plan prescribed burning for fuel, ecological and cultural resource management

Indigenous land management

Unit Code	Unit Title
AHCASW501	Survey and report on Aboriginal cultural sites* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCILM501	Conduct field research into natural and cultural resources
AHCILM502	Develop conservation strategies for cultural resources
AHCILM503	Manage restoration of cultural places
AHCILM504	Develop strategies for Indigenous land or sea management
AHCILM505	Map relationship of business enterprise to culture and Country
AHCILM506	Operate within Community cultures and goals
AHCILM508	Propose a negotiated outcome for a given area of Country
AHCILM510	Plan for successful cultural practice at work* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCILM601	Manage cultural processes in an Indigenous organisation
SITTGDE001	Interpret aspects of local Australian Indigenous culture

Lands, parks and wildlife

Unit Code	Unit Title
AHCLPW501	Develop a management plan for a designated area
AHCLPW503	Assess applications for legislative compliance
AHCLPW505	Implement natural and cultural resource management plans

AHCLPW601	Coordinate the preparation of a regional resource management plan
CPPWMT5043A	Develop and implement an environmental management strategy
NWPIRR073	Implement and coordinate catchment management plan
NWP513B	Develop and review catchment management plan
NWPIRR072	Implement and coordinate surface water management plan
NWPIRR062	Develop and review irrigation system management plan
NWPIRR063	Develop and review surface water management plan
NWP518B	Prepare and report on data related to flood mitigation
NWP519B	Develop and report flood mitigation
PUAFIR406B	Develop prescribed burning plans * <i>PUAFIR303B Suppress wildfire</i>
SISXRES001	Conduct sustainable work practices in open spaces
LGAPLEM612B	Protect heritage and cultural assets

Natural area restoration

Unit Code	Unit Title
AHCNAR501	Manage natural areas on a rural property
AHCNAR502	Conduct biological surveys
AHCNAR503	Design a natural area restoration project
AHCNAR504	Manage natural area restoration programs
AHCNAR505	Plan river restoration works
AHCNAR506	Develop and implement sustainable land use strategies

Natural Resource Management

Unit Code	Unit Title
AHCNRM508	Investigate suspected breaches of Natural Resource Management

	legislation
AHCNRM602	Develop a monitoring, evaluation and reporting program
AHCNRM603	Implement a monitoring, evaluation and reporting program

Pest management

Unit Code	Unit Title
AHCPMG410	Implement the pest monitoring and evaluation plan
AHCPMG413	Define the pest problem
AHCPMG507	Develop a regional pest management plan
AHCPMG508	Develop a system to monitor and evaluate the pest management plan
AHCPMG506	Manage the implementation of legislation

Plants

Unit Code	Unit Title
AHCPCM502	Collect and classify plants

Soil and water conservation

Unit Code	Unit Title
AHCSAW501	Design control measures and structures
AHCSAW502	Plan erosion and sediment control measures
AHCSAW503	Plan conservation earthworks

Group B

Biosecurity

Unit Code	Unit Title
AHCBER502	Manage the implementation of an emergency disease or plant pest control program

Business

Unit Code	Unit Title
AHCBUS501	Manage staff
AHCBUS503	Negotiate and monitor contracts
AHCBUS504	Prepare estimates, quotes and tenders
AHCBUS508	Prepare and monitor budgets and financial reports
TLIR4003	Negotiate a contract

Fauna

Unit Code	Unit Title
AHCFAU501	Manage fauna populations

Fire

Unit Code	Unit Title
AHCFIR501	Manage wildlife hazard reduction programs

Lands, parks and wildlife

Unit Code	Unit Title
AHCLPW501	Develop a management plan for a designated area

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM501	Manage machinery and equipment
AHCMOM502	Implement a machinery management system
BSBWHS503	Contribute to the systematic management of WHS risk

BSBWHS508	Manage WHS hazards associated with plant
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Workplace health and safety

Unit Code	Unit Title
ACMWHS501A	Manage work health and safety processes

Natural area restoration

Unit Code	Unit Title
SITTPPD002	Develop interpretive activities
SITTPPD009	Develop environmentally sustainable tourism operations

Natural resource management

Unit Code	Unit Title
AHCNRM501	Develop a coastal rehabilitation strategy
AHCNRM502	Develop a water quality monitoring program
AHCNRM503	Support the implementation of waterways strategies
AHCNRM504	Interpret and report on catchment hydrology
AHCNRM505	Provide technical advice on sustainable catchment management
AHCNRM506	Plan and monitor works projects in catchments and waterways
AHCNRM507	Manipulate and analyse data within geographic information systems

Parks and gardens

Unit Code	Unit Title
AHCPGD503	Manage parks and reserves
AHCPGD505	Conduct comprehensive inspection of park facilities

Work

Unit Code	Unit Title
AHCWRK502	Collect and manage data
AHCWRK503	Prepare reports
AHCWRK508	Interpret legislation
AHCWRK509	Provide specialist advice to clients
AHCWRK511	Develop workplace policy and procedures for sustainability
PSPPM502B	Manage complex projects
PSPPM503B	Close complex projects

Qualification Mapping Information

This qualification is equivalent to AHC51110 Diploma of Conservation and Land Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC51216 Diploma of Community Coordination and Facilitation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the role of personnel working in community coordination and facilitation, which focuses on fostering, promoting and supporting community development, particularly in rural communities that are engaged in land management activities.

Job roles and titles vary across different industry sectors. Possible job titles relevant to this qualification include:

- Volunteer
- Project manager
- Community group leader/coordinator
- Regional coordinator

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 0
- Elective Units = 10

Elective Units

- Select a minimum of 4 units from Group A
- Select a minimum of 4 units from Group A or Group B

- A maximum of 2 units may be selected from the elective list of any Certificate IV or above of this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in community coordination and facilitation and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Group A

Community coordination and facilitation

Unit Code	Unit Title
AHCCCF501	Evaluate project submissions
AHCCCF502	Facilitate development of group goals and projects
AHCCCF503	Promote group formation and development
AHCCCF504	Support group and community changes in resource management
AHCCCF505	Contribute to regional planning process
AHCCCF506	Manage the incorporation of a group
AHCCCF601	Coordinate the development of regional plans

Group B

Business

Unit Code	Unit Title
AHCBUS501	Manage staff
AHCBUS502	Market products and services
AHCBUS503	Negotiate and monitor contracts
AHCBUS504	Prepare estimates, quotes and tenders
AHCBUS505	Develop a marketing plan
AHCBUS506	Develop and review a business plan
AHCBUS507	Monitor and review business performance
AHCBUS508	Prepare and monitor budgets and financial reports

BSBADM504	Plan and implement administrative systems
BSBRES401	Analyse and present research information
TLIL5019	Implement and monitor transport logistics
TLIR4002	Source goods/services and evaluate contractors
TLIR4003	Negotiate a contract

Community coordination and facilitation

Unit Code	Unit Title
AHCCCF401	Prepare project acquittal
AHCCCF402	Report on project
AHCCCF403	Obtain and manage sponsorship
AHCCCF404	Contribute to association governance
AHCCCF405	Develop community networks
AHCCCF406	Facilitate ongoing group development
AHCCCF407	Obtain resources from community and groups
AHCCCF408	Promote community programs
AHCCCF409	Participate in assessments of project submissions
AHCCCF410	Support individuals in resource management change processes
AHCCCF411	Develop approaches to include cultural and human diversity
AHCCCF412	Coordinate board or committee elections
AHCCCF413	Service committees
AHCCCF414	Coordinate fundraising activities
AHCCCF415	Coordinate social events to support group purposes
AHCCCF416	Present proposed courses of action to meeting
CHCCDE002	Develop and implement community programs

LGACOM502B	Devise and conduct community consultations
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Lands, parks and wildlife

Unit Code	Unit Title
PUACOM012B	Liaise with media at a local level
AHCLPW501	Develop a management plan for a designated area

Natural resource management

Unit Code	Unit Title
AHCNRM602	Develop a monitoring, evaluation and reporting program
AHCNRM603	Implement a monitoring, evaluation and reporting program

Workplace Health and Safety

Unit Code	Unit Title
AHCWHS501	Manage work health and safety processes

Work

Unit Code	Unit Title
AHCWRK501	Plan, implement and review a quality assurance program
AHCWRK502	Collect and manage data
AHCWRK503	Prepare reports
AHCWRK504	Assess new industry developments
AHCWRK505	Manage trial and or research material
AHCWRK507	Implement professional practice
AHCWRK508	Interpret legislation
AHCWRK509	Provide specialist advice to clients

AHCWRK510	Audit site operations
AHCWRK511	Develop workplace policy and procedures for sustainability
PSPPM502B	Manage complex projects
PSPPM503B	Close complex projects

Qualification Mapping Information

This qualification is equivalent to AHC51210 Diploma of Community Coordination and Facilitation.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC51316 Diploma of Pest Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides occupation outcomes for senior officers and managers in the pest management sector. These roles include functions such as planning, coordinating, managing and completing small to large scale pest management programs and may include participating in emergency operations such as disease outbreak or natural disasters.

The qualification is applicable to individuals who work in weed management as well as vertebrate pest management in a range of contexts, including conservation, land management, agriculture, horticulture, and parks and gardens.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 0
- Elective Units = 10
- 3 Units from Group A
- 2 Units from Group B

Elective Units

- Select at least 5 units from Group A
- Select at least 3 units from Group A or Group B

- A maximum of 2 units may be selected from the elective list of a Certificate IV or above of this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in Conservation and Land Management and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Elective Units

Group A

Pest Management

Unit Code	Unit Title
AHCPMG506	Manage the implementation of legislation
AHCPMG507	Develop a regional pest management plan
AHCPMG508	Develop a system to monitor and evaluate the pest management plan
AHCPMG509	Investigate a pest control failure
AHCPMG510	Develop a pest survey strategy

Natural Area Restoration

Unit Code	Unit Title
AHCNAR502	Conduct biological surveys

Natural Resource Management

Unit Code	Unit Title
AHCNRM602	Develop a monitoring, evaluation and reporting program
AHCNRM603	Implement a monitoring, evaluation and reporting program

Work Health and Safety

Unit Code	Unit Title
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AHCWHS501	Manage work health and safety processes
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Group B

Biosecurity

Unit Code	Unit Title
AHCBER401	Plan and supervise control activities on infected premises

Business

Unit Code	Unit Title
AHCBUS501	Manage staff
AHCBUS503	Negotiate and monitor contracts
AHCBUS504	Prepare estimates, quotes and tenders
AHCBUS508	Prepare and monitor budgets and financial reports
AHCBUS606	Develop a monitoring, evaluation and reporting program
AHCBUS607	Implement a monitoring, evaluation and reporting program

Community Coordination and Facilitation

Unit Code	Unit Title
AHCCCF502	Facilitate development of group goals and projects
AHCCCF505	Contribute to regional planning process
AHCCCF601	Coordinate the development of regional plans

Chemicals

Unit Code	Unit Title
AHCCHM501	Develop and manage a chemical use strategy
AHCCHM401	Develop procedures to minimise risks in the use of chemicals*

	<i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>

Lands, Parks and Wildlife

Unit Code	Unit Title
AHCLPW501	Develop a management plan for a designated area

Plants

Unit Code	Unit Title
AHCPCM502	Collect and classify plants

Pest Management

Unit Code	Unit Title
AHCPMG409	Implement a pest management plan
AHCPMG413	Define the pest problem

Work

Unit Code	Unit Title
AHCMOM402	Supervise maintenance of property machinery and equipment
AHCWRK502	Collect and manage data
AHCWRK503	Prepare reports
AHCWRK504	Assess new industry developments
AHCWRK509	Provide specialist advice to clients
BSBRES401	Analyse and present research information

CHCCDE010	Develop and lead community engagement strategies to enhance participation
LGACOM404B	Establish cooperative arrangements with other organisations
PSPPM502B	Manage complex projects
PSPPM503B	Close complex projects
TLIR4002	Source goods and services and evaluate contactors

Qualification Mapping Information

No equivalent qualification. This qualification is not equivalent to AHC51310 Diploma of Pest Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC51416 Diploma of Agribusiness Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the role of personnel working on farms, stations and related rural businesses involved in administering and managing those businesses.

Industry expects individuals with this qualification to take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

This qualification is suitable for an Australian Apprenticeship.

Job roles and titles vary across different industry sectors. Possible job titles relevant to this qualification include:

- Farm manager/administrator
- Production unit manager/administrator
- Station/property manager/Agribusiness manager/administrator

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 0
- Elective Units = 10

Elective Units

- Select at least 8 units from the elective list

- 2 units aligned to AQF level 4 or above may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in rural business and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Agribusiness

Unit Code	Unit Title
AHCAGB501	Develop climate risk management strategies
AHCAGB502	Plan and manage infrastructure requirements
AHCAGB503	Plan and monitor production processes
AHCAGB504	Plan production for the whole business
AHCAGB505	Develop a whole farm plan
AHCAGB602	Manage estate planning
BSBADM504	Plan and implement administrative systems
BSBWOR501	Manage personal work priorities and professional development

Business

Unit Code	Unit Title
AHCBUS401	Administer finance, insurance and legal requirements
AHCBUS501	Manage staff
AHCBUS502	Market products and services
AHCBUS503	Negotiate and monitor contracts
AHCBUS504	Prepare estimates, quotes and tenders
AHCBUS506	Develop and review a business plan
AHCBUS507	Monitor and review business performance
AHCBUS508	Prepare and monitor budgets and financial reports
AHCBUS509	Develop and implement business structures and relationships

AHCBUS510	Manage finance, insurance and legal requirements
TLIL5019	Implement and monitor transport logistics
TLIR4002	Source goods/services and evaluate contractors
TLIR4003	Negotiate a contract

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM501	Manage machinery and equipment
AHCMOM502	Implement a machinery management system
AHCMOM601	Analyse machinery options

Natural area restoration

Unit Code	Unit Title
AHCNAR506	Develop and implement sustainable land use strategies

Work

Unit Code	Unit Title
AHCWRK511	Develop workplace policy and procedures for sustainability

Work health and safety

Unit Code	Unit Title
AHCWHS501	Manage work health and safety processes
BSBWHS503	Contribute to the systematic management of WHS risk
BSBWHS508	Manage WHS hazards associated with plant

Qualification Mapping Information

This qualification is equivalent to AHC51410 Diploma of Agribusiness Management.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC51516 Diploma of Viticulture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification is designed to meet the needs of managers in the viticulture industry.

There are no formal entry requirements for this qualification. However, the qualification assumes that a learner has current or past work experience where operational or technical skills have already been gained and a production management level of responsibility exists. The qualification is not suitable for direct entry from school.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 4
- Elective Units = 6

Core Units

Unit Code	Unit Title
AHCBUS501	Manage staff
AHCPCM501	Diagnose plant health problems
AHCPHT504	Develop a grape production plan
AHCSOL501	Monitor and manage soils for production

Elective Units

- Select 4 units from list below
- 2 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in viticulture and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Unit Code	Unit Title
AHCBAC505	Plan and manage long-term weed, pest or disease control in crops
AHCBER501	Manage active operational emergency disease or plant pest sites
AHCBER502	Manage the implementation of an emergency disease or plant pest control program
AHCBUS502	Market products and services
AHCBUS503	Negotiate and monitor contracts
AHCBUS506	Develop and review a business plan
AHCBUS507	Monitor and review business performance
AHCBUS508	Prepare and monitor budgets and financial reports
AHCCHM501	Develop and manage a chemical use strategy
AHCDRG501	Design drainage systems
AHCIRG502	Design irrigation system maintenance and monitoring programs
AHCIRG503	Design irrigation, drainage and water treatment systems
AHCIRG504	Develop an irrigation and drainage management plan
AHCMOM501	Manage machinery and equipment
AHCMOM502	Implement a machinery management system
AHCNAR506	Develop and implement sustainable land use strategies
AHCORG501	Develop an organic management plan

AHCORG502	Prepare the enterprise for organic certification
AHCPHT505	Evaluate wine
AHCPHT506	Manage a wine making process
AHCWAT502	Manage water systems
AHCWHS501	Manage work health and safety processes
AHCWRK501	Plan, implement and review a quality assurance program
BSBR501	Manage risk
TLIL5019	Implement and monitor transport logistics
TLIR4002	Source goods/services and evaluate contractors

Qualification Mapping Information

This qualification is equivalent to AHC51513 Diploma of Viticulture.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC51616 Diploma of Irrigation Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the skills and knowledge required to operate as an irrigation business manager.

Possible job titles relevant to this qualification include:

- Irrigation business manager.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 11

- Core Units = 6
- Elective Units = 5

Core Units

Unit Code	Unit Title
AHCIRG402	Determine hydraulic parameters for an irrigation system
AHCIRG501	Audit irrigation systems
AHCIRG502	Design irrigation system maintenance and monitoring programs
AHCIRG503	Design irrigation, drainage and water treatment systems

AHCIRG504	Develop an irrigation and drainage management plan
AHCSOL501	Monitor and manage soils for production

Elective Units

- Select 3 units from the elective list below.
- 2 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in irrigation management and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Unit Code	Unit Title
AHCBUS501	Manage staff
AHCBUS502	Market products and services
AHCBUS503	Negotiate and monitor contracts
AHCBUS504	Prepare estimates, quotes and tenders
AHCBUS506	Develop and review a business plan
AHCBUS507	Monitor and review business performance
AHCBUS508	Prepare and monitor budgets and financial reports
AHCDRG501	Design drainage systems
AHCIRG505	Establish and maintain an irrigation-related environmental protection program
AHCWHS501	Manage work health and safety processes
AHCWRK502	Collect and manage data
AHCWRK503	Prepare reports
AHCWRK507	Implement professional practice
AHCWRK509	Provide specialist advice to clients
AHCWRK510	Audit site operations

AHCWRK511	Develop workplace policy and procedures for sustainability
BSBCUS501	Manage quality customer service
BSBFIM501	Manage budgets and financial plans
BSBHRM506	Manage recruitment selection and induction processes
BSBRES401	Analyse and present research information
PSPPM502B	Manage complex projects
PSPPM503B	Close complex projects
SIRXCLM402	Manage store facilities
SIRRINV001	Receive and handle retail stock
SIRXMER004A	Manage merchandise and store presentation
SIRXRSK404	Control store security
SIRXSLS406	Manage sales and service delivery
TLIR4002	Source goods/services and evaluate contractors

Qualification Mapping Information

This qualification is equivalent to AHC51610 Diploma of Irrigation Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC51816 Diploma of Organic Farming

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the role of personnel working within an organic farming enterprise who manage enterprise production units, manage the certification and continued compliance with organic standards and develop and maintain organic produce supply chains. It is designed to meet the needs of owners and managers of organic farming enterprises.

This qualification is suitable for people currently working or who wish to find employment on an organic farming enterprise or who own an organic farming enterprise.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 2
- Elective Units = 8

Core Units

Organic farming

Unit Code	Unit Title
AHCAGB504	Plan production for the whole business
AHCORG506	Manage an agro-ecology production system

Elective Units

- Select 2 units from Group A
- Select 5 units from Group A or Group B
- 1 unit aligned to AQF level 4 or above may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in agriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Organic farming

Unit Code	Unit Title
AHCORG401	Manage biodynamic production
AHCORG402	Manage organic livestock production
AHCORG403	Manage organic soil improvement
AHCORG407	Manage a landless organic production system
AHCORG408	Manage on-farm composting
AHCORG501	Develop an organic management plan
AHCORG502	Prepare the enterprise for organic certification
AHCORG503	Design and document an organic farm landscape
AHCORG504	Develop and manage a community based marketing supply chain
AHCORG505	Develop and monitor a sustainable production plan
AHCPER507	Research and interpret requirements for a permaculture project
AHCSOL501	Monitor and manage soils for production projects

Group B

Agribusiness

Unit Code	Unit Title
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AHCAGB501	Develop climate risk management strategies
AHCBUS502	Market products and services
AHCBUS503	Negotiate and monitor contracts
AHCBUS508	Prepare and monitor budgets and financial reports
AHCMER501	Develop a sales strategy for rural products
BSBFIM501	Manage budgets and financial plans

Broadacre cropping

Unit Code	Unit Title
AHCBAC408	Manage agricultural crop production
AHCBAC503	Manage integrated crop and pasture production
AHCBAC505	Plan and manage long-term weed, pest or disease control in crops
AHCBAC506	Manage the harvest of crops
AHCBAC507	Develop production plans for crops

Business

Unit Code	Unit Title
AHCBUS501	Manage staff
AHCBUS506	Develop and review a business plan
AHCBUS507	Monitor and review business performance
BSBR501	Manage risk

Chemicals

Unit Code	Unit Title
AHCCHM402	Plan and implement a chemical use program * <i>AHCCHM303 Prepare and apply chemicals</i>

	<i>AHCCHM304 Transport and store chemicals</i>
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Livestock

Unit Code	Unit Title
AHCLSK501	Manage livestock production
AHCLSK502	Arrange marketing of livestock
AHCLSK503	Develop and implement a breeding strategy
AHCLSK504	Develop livestock health and welfare strategies
AHCLSK505	Develop production plans for livestock
AHCLSK506	Design livestock effluent systems

Natural area restoration

Unit Code	Unit Title
AHCNAR506	Develop and implement sustainable land use strategies

Production horticulture

Unit Code	Unit Title
AHCPCM501	Diagnose plant health problems
AHCPHT502	Develop a horticultural production plan
AHCPHT503	Manage a controlled growing environment

Water

Unit Code	Unit Title
AHCIRG503	Design irrigation, drainage and water treatment systems
AHCWAT502	Manage water systems

Work

Unit Code	Unit Title
AHCWRK501	Plan, implement and review a quality assurance program
AHCWRK502	Collect and manage data
AHCWRK504	Assess new industry developments
AHCWRK511	Develop workplace policy and procedures for sustainability

Work health and safety

Unit Code	Unit Title
AHCWHS501	Manage work health and safety processes

Qualification Mapping Information

This qualification is not equivalent to AHC51812 Diploma of Organic Farming.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC52016 Diploma of Landscape Project Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This is a specialist qualification for landscape project managers.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 10

- Core Units = 3
- Elective Units = 7

Core Units

Unit Code	Unit Title
AHCLSC502	Manage landscape projects
AHCBUS503	Negotiate and monitor contracts
AHCBUS504	Prepare estimates, quotes and tenders

Elective Units

- Select 5 units from Group A or B

- 2 units aligned to AQF level 4 or above may be selected from elective units below or from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in landscape project management and must be chosen to ensure the integrity of the qualification outcome

Unit Code	Unit Title
AHCBUS508	Prepare and monitor budgets and financial reports
AHCDES503	Assess landscape sites
AHCLSC501	Survey and establish site levels
AHCWHS501	Manage work health and safety processes
AHCWRK503	Prepare reports
AHCWRK508	Interpret legislation
AHCWRK509	Provide specialist advice to clients
AHCWRK510	Audit site operations
BSBHRM506	Manage recruitment selection and induction processes
BSBITU401	Design and develop complex text documents
CPPWMT5045A	Develop site safety plans
TLIR4002	Source goods/services and evaluate contractors

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC52116 Diploma of Permaculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides occupation outcomes for individuals to work in a leadership capacity for organisations, groups or enterprises. They require a whole system approach to planning, designing, managing and implementing integrated permaculture projects and programs, permaculture community programs, and the operation of permaculture enterprises.

The qualification is suited to learners who wish to work within organisations and enterprises where skills in strategic planning and project management, natural system and land use planning, and specialist permaculture design are required. Work is likely to involve working with teams of people at the strategic level as well as working with people of diverse backgrounds and abilities.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 12

- Core Units = 5
- Elective Units = 7

Core Units

Unit Code	Unit Title
AHCPER401	Provide advice on permaculture principles and practices
AHCPER502	Design an integrated permaculture system

AHCPER503	Develop a strategic plan for a permaculture project or enterprise
AHCPER504	Manage a permaculture project
AHCPER507	Research and interpret requirements for a permaculture project

Elective Units

- Select 5 units from Group A
 - Select 4 units from Group A or B
 - 2 units may be selected from Group B or this or any other endorsed Training Package or Accredited Course
- Selected units must be relevant to job outcomes in Permaculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 5

Group A

Unit Code	Unit Title
AHCPER501	Carry out permaculture field research
AHCPER505	Plan and supervise the implementation of permaculture project works
AHCPER506	Manage a localisation or transition project
AHCPER508	Manage a permaculture aid and development project
AHCPER509	Design permaculture structures and features
AHCPER510	Prepare a sustainable community and bioregional development strategy
AHCPER511	Facilitate participatory planning and learning activities
AHCPER512	Plan community governance and decision making processes
AHCPER413	Evaluate suitability of species as solutions for permaculture applications
AHCORG402	Manage organic livestock production
AHCORG403	Manage organic soil improvement

Group B

Unit Code	Unit Title
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AHCAGB501	Develop climate risk management strategies
AHCBUS502	Market products and services
AHCBUS503	Negotiate and monitor contracts
AHCBUS506	Develop and review a business plan
AHCCCF501	Evaluate project submissions
AHCCCF506	Manage the incorporation of a group
AHCILM506	Operate within community cultures and goals
AHCNAR501	Manage natural areas on a rural property
AHCORG501	Develop an organic management plan
AHCORG502	Prepare the enterprise for organic certification
AHCSAW502	Plan erosion and sediment control measures
AHCWRK509	Provide specialist advice to clients
AHCWRK511	Develop workplace policies and procedures for sustainability
CHCCDE012	Work within organisation and government structures to enable community development outcomes
CHCVOL003	Recruit, induct and support volunteers

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC60216 Advanced Diploma of Horticulture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the roles of individuals working in management roles in horticulture.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 8

- Core Units = 0
- Elective Units = 8

Elective Units

- Select 6 units from the elective list below
- 2 units may be selected from this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in horticulture and must be chosen to ensure the integrity of the qualification outcome at AQF level 6

Unit Code	Unit Title
ACHPCM601	Develop and implement a plant health management strategy
AHCAGB501	Develop climate risk management strategies

AHCAGB502	Plan and manage infrastructure requirements
AHCAGB601	Develop export markets for produce
AHCAGB602	Manage estate planning
AHCAGB603	Manage the production system
AHCAGB604	Analyse business performance
AHCAGB605	Manage business capital
AHCAGB606	Manage price risk through trading strategy
AHCBER601	Plan and oversee an emergency disease or plant pest control program
AHCBUS601	Manage capital works
AHCBUS602	Review land management plans and strategies
AHCBUS603	Develop and review a strategic plan
AHCBUS604	Design and manage the enterprise quality management system
AHCBUS605	Manage human resources
AHCBUS606	Develop a monitoring, evaluation and reporting program
AHCBUS607	Implement a monitoring, evaluation and reporting program
AHCBUS608	Manage risk
AHCMER501	Develop a sales strategy for rural products
AHCMOM601	Analyse machinery options
AHCPCM601	Develop and implement a plant health management strategy
AHCWHS501	Manage work health and safety processes
AHCWRK601	Monitor projects in a program
AHCWRK602	Lead and manage community or industry organisations
CPPWMT5045A	Develop site safety plans
PSPPCY004	Support policy implementation
SRXGOV001B	Participate as a member of an effective Board of an organisation

SRXGOV004B	Work effectively with the Board of an organisation
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Qualification Mapping Information

This qualification is equivalent to AHC60210 Advanced Diploma of Horticulture.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC60316 Advanced Diploma of Agribusiness Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the roles of individuals working in a range of agribusinesses. The units covered in this qualification are uniquely contextualised for the agribusiness sector and reflect the need for agribusiness specific management expertise in planning and analysis, financial and human resource management together with an emphasis on sustainability.

This qualification is also suited to the needs of individuals who possess significant theoretical agribusiness skills and knowledge that they would like to further develop in order to create further educational or employment opportunities.

Job roles and titles vary across different industry sectors. Possible job titles relevant to this qualification include:

- Rural and regional agribusiness manager (including lending managers, insurance brokers, machinery dealers, chemical resellers, stock agents, grain marketers, real estate agents)
- Agriculture enterprise business manager
- Production horticulture enterprise business manager

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 8

- Core Units = 0
- Elective Units = 8

Elective Units

- Select at least 6 units from the elective list
- 2 units aligned to AQF level 5 or above may be selected from the elective list, or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in agribusiness management and must be chosen to ensure the integrity of the qualification outcome at AQF level 6

Agribusiness

Unit Code	Unit Title
AHCAGB501	Develop climate risk management strategies
AHCAGB502	Plan and manage infrastructure requirements
AHCAGB601	Develop export markets for produce
AHCAGB602	Manage estate planning
AHCAGB603	Manage the production system
AHCAGB604	Analyse business performance
AHCAGB605	Manage business capital
AHCAGB606	Manage price risk through trading strategy

Business

Unit Code	Unit Title
AHCBUS601	Manage capital works
AHCBUS602	Review land management plans and strategies
AHCBUS603	Develop and review a strategic plan
AHCBUS604	Design and manage the enterprise quality management system
AHCBUS605	Manage human resources
AHCBUS606	Develop a monitoring, evaluation and reporting program
AHCBUS607	Implement a monitoring, evaluation and reporting program

AHCBUS608	Manage risk
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Business Services

Unit Code	Unit Title
BSBMGT623	Monitor corporate governance activities

Machinery operation and maintenance

Unit Code	Unit Title
AHCMOM601	Analyse machinery options

Merchandising and sales

Unit Code	Unit Title
AHCMER501	Develop a sales strategy for rural products

Work

Unit Code	Unit Title
AHCWRK601	Monitor projects in a program
AHCWRK602	Lead and manage community or industry organisations
AHCWRK603	Design and conduct a field-based research trial
CPPWMT5045A	Develop site safety plans
PSPPCY004	Support policy implementation
SRXGOV001B	Participate as a member of an effective Board of an organisation
SRXGOV004B	Work effectively with the Board of an organisation

Qualification Mapping Information

This qualification is equivalent to AHC60310 Advanced Diploma of Agribusiness Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC60415 Advanced Diploma of Conservation and Land Management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification reflects the roles of individuals working in regional and senior management roles in conservation and land management.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Total number of units = 8

- Core Units = 0
- Elective Units = 8

Elective Units

- Select at least 6 units from the elective list
- A maximum of 2 units may be selected from the elective list of this or any other endorsed Training Package or Accredited Course.
Selected units must be relevant to job outcomes in conservation and land management and must be chosen to ensure the integrity of the qualification outcome at AQF level 6.

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Biosecurity

Unit Code	Unit Title
AHCBER601	Plan and oversee an emergency disease or plant pest control program

Business

Unit Code	Unit Title
AHCNRM601	Review land management plans and strategies
AHCNRM602	Develop a monitoring, evaluation and reporting program
AHCNRM603	Implement a monitoring, evaluation and reporting program
AHCBUS605	Manage human resources
AHCBUS608	Manage risk
BSBFIM501	Manage budgets and financial plans
BSBMGT617	Develop and implement a business plan
PSPPCY010	Manage policy implementation
PUAFIR601B	Develop and administer agency policy, procedures and practices

Community coordination and facilitation

Unit Code	Unit Title
AHCCCF601	Coordinate the development of regional plans

Indigenous land management

Unit Code	Unit Title
AHCILM601	Manage cultural processes in an Indigenous organisation

Lands, parks and wildlife

Unit Code	Unit Title
AHCLPW601	Coordinate the preparation of a regional resource management plan

Work

Unit Code	Unit Title
AHCWRK511	Develop workplace policy and procedures for sustainability
AHCWRK601	Monitor projects in a program

Qualification Mapping Information

This qualification is equivalent to AHC60410 Advanced Diploma of Conservation and Land Management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC60516 Advanced Diploma of Arboriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides occupation outcomes with broad knowledge and skills for paraprofessional/highly skilled work and further learning required for consulting arborists in the arboriculture industry.

Possible job roles relevant to this qualification include:

- Consulting Arborist
- Senior Consulting Arborist
- Senior Arborist

Occupational licensing, legislative or certification requirements may apply to this qualification in some jurisdictions. Specific determination should be sought through the relevant State or Territory.

Entry Requirements

AHC50515 Diploma of Arboriculture.

Packaging Rules

Total number of units = 10

- Core Units = 7
- Elective Units = 3

Core Units

Unit Code	Unit Title
AHCARB601	Examine and assess trees* <i>AHCARB403 Perform a ground-based tree defect evaluation**</i>

	<i>AHCARB302 Inspect trees for access and work***</i> <i>AHCARB313 Identify trees</i>
AHCARB602	Diagnose tree diseases
AHCARB603	Interpret diagnostic test results
AHCARB604	Measure and improve the performance of urban forests
AHCARB605	Provide consultation in a legal framework
AHCARB606	Develop an operational tree management plan
AHCWRK507	Implement professional practice

Elective Units

- Select 1 unit from Group A
- An additional 2 units may be selected from Group A or this or any other endorsed Training Package or Accredited Course
Selected units must be relevant to job outcomes in Arboriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 6

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Unit Code	Unit Title
AHCARB607	Review and develop strategic tree policy
LGAPLEM512A	Provide geographic information systems data
AHCNRM507	Manipulate and analyse data within geographic information systems
AHCPCM601	Develop and implement a plant health management strategy
AHCARB507	Generate tree plans using computer-aided design software
AHCWRK603	Design and conduct a field-based research trial
MSL975017	Perform laboratory-based ecological techniques
AHCLPW601	Coordinate the preparation of a regional resource management plan

BSBMGT616	Develop and implement strategic plans
FWPFGM6203	Manage sustainable tree inventory
FWPCOT6204A	Use carbon accounting to estimate emissions
FWPCOT6205A	Prepare an enterprise carbon management report
FWPCOT6207A	Develop forest management systems and processes
LGAPLEM612	Protect heritage and cultural assets
BSBMGT617	Develop and implement a business plan
PSPPCY010	Manage policy implementation
BSBCOM602	Develop and create compliance requirements
LGAGCM710A	Manage contracts and contractors
LGACOMP008A	Apply conflict resolution strategies
AHCWRK502	Collect and manage data

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC80116 Graduate Diploma of Arboriculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Qualification Description

This qualification provides occupation outcomes with advanced knowledge and skills for professional or highly skilled work and/or further learning required for consulting arborists in the arboriculture industry.

Possible job roles relevant to this qualification include:

- Consulting Arborist
- Senior Consulting Arborist
- Senior Arborist

Occupational licensing, legislative or certification requirements may apply to this qualification in some jurisdictions. Specific determination should be sought through the relevant State or Territory.

Entry Requirements

AHC60515 Advanced Diploma of Arboriculture

Packaging Rules

Total number of units = 5

- Core units = 0
- Elective Units = 5

Elective Units

- Select 2 units from Group A
- An additional 3 units may be selected from Group A or B
Selected units must be relevant to job outcomes in Arboriculture and must be chosen to ensure the integrity of the qualification outcome at AQF level 8

NOTE: Units marked with an asterisk (*) require completion of prerequisite Unit/s which is identified under the Unit.

Group A

Unit Code	Unit Title
AHCARB801	Contextualise diagnostic tests
AHCARB802	Develop an urban forest management framework* <i>AHCARB703 Research urban forest performance</i>
AHCARB803	Analyse edaphic interactions of trees and structures* <i>AHCARB701 Analyse tree biomechanics</i>
AHCARB701	Analyse tree biomechanics
AHCARB702	Analyse mycology cultures
AHCARB703	Research urban forest performance
AHCARB704	Conduct an entomology research project

Group B

Unit Code	Unit Title
BSBRES801	Initiate and lead applied research
AMPMGT806	Commercialise research and technology product or idea
AHCARB607	Review and develop strategic tree policy
AHCWRK603	Design and conduct a field-based research trial
MSL975017	Perform laboratory-based ecological techniques

Qualification Mapping Information

No equivalent qualification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

ACMGAS301A Maintain and monitor animal health and wellbeing

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit of competency covers the process of following animal health management practices to monitor animal health via daily observations of behaviour and condition.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p>
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Application of the Unit

Application of the unit	<p>This unit is applicable to those working in animal care industry sectors where it may be necessary to care for a range of animal species and to monitor the wellbeing of healthy, ill or injured animals by observing and measuring indicators of ideal and poor development or response to treatments. These animals may be being kept long term in the workplace or being raised or prepared for sale, rehousing or release to their native habitat.</p> <p>In addition to legal and ethical responsibilities, all units of competency in the ACM10 Animal Care and Management Training Package have the requirement for animals to be handled gently and calmly. The individual is required to exhibit appropriate care for animals so that stress and discomfort is minimised.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Follow <i>animal</i> health management practices	<p>1.1. <i>Personal health and hygiene standards</i> are maintained in accordance with <i>occupational health and safety (OHS)</i> and organisation policies and procedures.</p> <p>1.2. <i>Animal diseases</i> and their impact on animals and humans are identified.</p> <p>1.3. Broad categories of <i>parasitic infestations</i> are identified.</p> <p>1.4. <i>Quarantine</i> areas are prepared and maintained in accordance with quarantine protocols</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>1.5. Animals requiring quarantine are identified and isolated.</p> <p>1.6. Quarantine records are maintained in accordance with organisation policies and procedures.</p>
2. Monitor and maintain the physical wellbeing of animals	<p>2.1. Different types of animal's anatomy and physiology are identified, compared and examined to determine physical appearance, particular body structures and observation recording requirements.</p> <p>2.2. Indicators of animal health are regularly monitored and tested in accordance with organisation standard operating procedures and facility demarcation/quarantine requirements involving movement of animals within or between facilities.</p> <p>2.3. The physical environment of animals is assessed for evidence of problems that may affect the physical wellbeing of animals</p> <p>2.4. Animal activity monitoring and health information and records are maintained in accordance with organisation standard operating procedures.</p>
3. Identify and report signs of ill health or injury in animals	<p>3.1. Signs of illness or injury are recognised and reported to supervisor.</p> <p>3.2. Abnormal animal behaviour and conditions are recognised and reported to supervisor.</p> <p>3.3. Samples are collected correctly and recorded as directed in accordance with organisation policies and procedures.</p> <p>3.4. Sick or injured animals are separated from other animals, as required, and cared for in accordance with supervisor or veterinary advice.</p> <p>3.5. Animals that are ill or injured are handled in accordance with OHS and legislative requirements, relevant codes of practice and organisation policies and procedures.</p>
4. Administer and record animal treatments	<p>4.1. Authorised animal treatments are administered under supervision and dosages recorded in accordance with organisation policies and procedures.</p> <p>4.2. Routine preventative health treatments are regularly monitored, administered and recorded in accordance with organisation standard operating procedures.</p> <p>4.3. Appropriate storage of treatments is identified and used in accordance with organisation policies and</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>procedures.</p> <p>4.4. Records relating to animal health status, before and after treatment, and to the specific nature of treatment provided are completed in accordance with organisation policies and procedures.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- complete relevant work-related documents
- employ safe and environmentally responsible organisational systems and procedures when handling animals
- maintain the highest standards of personal and workplace hygiene and infection control at all times to reduce the risk of infection and cross-infection
- participate in arrangements for maintaining the health and safety of all people and animals in the workplace
- take and record animals temperature, pulse, respiration and hydration indicators where appropriate
- literacy skills to read and follow organisational policies and procedures, including OHS and animal welfare; follow sequenced written instructions; and record information accurately and legibly
- oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- numeracy skills to estimate, calculate and record routine workplace measures
- interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities
- problem-solving skills to assess appropriate practices and prioritise daily tasks
- use personal protective clothing and equipment correctly
- use safe manual handling techniques and/or equipment
- use safe waste handling and disposal procedures.

Required knowledge

- anatomical and physiological terminology and glossary of terms
- anatomical and physiological structures and functions related to animal health and wellbeing

REQUIRED SKILLS AND KNOWLEDGE

- broad categories of parasitic infestations
- common diseases, ailments, injuries and other impacts on animal health and wellbeing
- housing, exercise, social and activity needs of animals
- indicators of poor response to treatment or management of young, ill, injured or compromised animals
- indicators of recovery from illness or injury
- methods used to measure, interpret and record animals weight and other objective measures of animal health
- principles of animal welfare and ethics
- relevant OHS and animal welfare legislative requirements and codes of practice
- quarantine protocols
- safe work practices
- terminology used to describe and document health and behavioural signs and symptoms
- workplace hygiene standards, disinfectants, cleaning agents, cleaning techniques and cleaning equipment and materials.

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competence in this unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit. Assessors should ensure that candidates can:

- carry out routine, consistent monitoring of animal health and physical wellbeing
- maintain personal health and a hygienic work environment
- follow quarantine protocols as required
- identify good health, illness, injury and abnormal behaviour in animals and report to supervisor
- administer authorised animal treatments and

EVIDENCE GUIDE	
	<p>implement routine preventative health programs as directed</p> <ul style="list-style-type: none"> maintain accurate animal activity monitoring, health, treatment and quarantine records. <p>The skills and knowledge required to maintain and monitor animal health and wellbeing must be transferable to a range of work environments and contexts and include the ability to deal with unplanned events.</p>
Context of and specific resources for assessment	<p>Assessment of this unit is to be practical in nature and will be most appropriately assessed in an animal care industry sector workplace in which candidates are working or in a situation that reproduces normal work conditions. Workplaces can include pet shops, breeding or boarding kennels and catteries, aviaries, companion animal training, grooming establishments, animal shelters, zoos, wildlife parks, mobile animal facilities and animal technology facilities.</p> <p>There must be access in either situation to a range of animals as well as relevant information, equipment and/or resources to enable one to demonstrate competence. Assessment must be relevant to the industry sector in which candidates are working and must cover a minimum of one species from at least two of the six major animal groups OR at least three breeds from within one of the six major animal groups (mammals, fish, birds, amphibians, reptiles, invertebrates).</p>
Method of assessment	<p>To ensure consistency in one's performance, competency should be demonstrated, to industry defined standards, on more than one occasion over a period of time in order to cover a variety of circumstances over a number of assessment activities.</p> <p>The assessment strategy must include practical skills assessment. Suggested strategies for this unit are:</p> <ul style="list-style-type: none"> written and/or oral assessment of candidate's required knowledge observed, documented and first-hand testimonial evidence of candidate's application of practical tasks

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • simulation exercises that reproduce normal work conditions • third-party evidence • workplace documentation • portfolio. <p>This unit may be assessed in a holistic way with other units of competency relevant to the industry sector, workplace and job role.</p>
Guidance information for assessment	Assessment methods should reflect workplace demands (e.g. literacy and numeracy demands) and the needs of particular target groups (e.g. people with disabilities, Aboriginal and Torres Strait Islander people, women, people with a language background other than English, youth and people from low socioeconomic backgrounds).

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<i>Animals</i> may include:	<ul style="list-style-type: none"> • animals commonly encountered within the industry workplace and may cover both native and introduced species • animals from the six major animal groups (mammals, birds, reptiles, amphibians, fish and invertebrates).
<i>Personal health and hygiene standards</i> may include:	<ul style="list-style-type: none"> • appropriate handling reprocessing of reusable equipment • aseptic technique • cover cuts and abrasions with waterproof dressing and change as necessary • maintain personal immunisation/vaccination requirements for working with animals where

RANGE STATEMENT	
	<p>required</p> <ul style="list-style-type: none"> • personal hygiene practices especially washing and drying hands before and after animal contact and/or any activity likely to cause cross-contamination • safe handling and disposal of sharps and other clinical, related and general waste • use of personal protective clothing and equipment and change as appropriate for the intended use.
<i>OHS</i> risks when working with animals may include:	<ul style="list-style-type: none"> • animal bites, envenomation, kicks, scratches and crush injuries • biological hazardous waste and sharps disposal • handling of chemicals and medicines • gas leakage • inhalation of aerosol particles • intraocular contamination • manual handling, including carrying, lifting and shifting • needle pricks and cuts from other sharps • release of infective agents (animal and human) • slippery or uneven work surfaces • zoonoses.
<i>Animal diseases</i> may include:	<ul style="list-style-type: none"> • infectious diseases: <ul style="list-style-type: none"> • bacteria • fungi • internal and external parasites • virus • zoonoses • non-infectious diseases: <ul style="list-style-type: none"> • allergies • chemical toxicities • genetic • metabolic • neoplastic • nutritional • physical traumas.
<i>Parasitic infestations</i> may include:	<ul style="list-style-type: none"> • external parasites: <ul style="list-style-type: none"> • fleas, mites, lice or ticks • flies and midges

RANGE STATEMENT	
	<ul style="list-style-type: none"> • classes of internal parasites: <ul style="list-style-type: none"> • cetoda • nemotoda • trematoda.
<i>Quarantine</i> requirements may include:	<ul style="list-style-type: none"> • procedures and hygiene standards applied • reasons for quarantine • maintaining required records • quarantine periods for various species.
<i>Indicators of animal health</i> monitoring may include:	<ul style="list-style-type: none"> • observing and reporting unusual behaviour for nominated animal: <ul style="list-style-type: none"> • aggression or docility (depending on animal) • disinterest in surroundings, other animals, people or usual stimuli • excessive licking, scratching and rubbing • lethargy • nest building • self mutilation • trembling • vocalising • observing and reporting indicators of illness or injury: <ul style="list-style-type: none"> • bleeding • changes in drinking or eating patterns • lameness or reluctance to move and vocalising when attempting to move • swelling • unusual amounts, colour or texture of faeces.
<i>Physical environment of animals</i> may include:	<ul style="list-style-type: none"> • absence or presence of vermin and pests • ability to maintain appropriate hygiene standards to ensure animal health • ability to maintain enclosure security • access to sunlight, • air flow and draught • construction materials of enclosure, housing, bedding, feed and water containers, behaviour enrichment items and floor surface • location of enclosure and construction materials that may provide for or hinder positive

RANGE STATEMENT	
	<ul style="list-style-type: none"> behavioural stimulation • location of enclosure in regard to other animals, noise and other potentially threatening or challenging stimuli • protection from weather extremes (e.g. heat, cold, precipitation and wind) • temperature range in enclosure and in housing area
<i>Signs of illness or injury</i> may include:	<ul style="list-style-type: none"> • chewing or licking own body excessively • defensive behaviours • drooling and regurgitating food • excessive drinking • excessive rolling • general changes in normal behaviour or routines • lameness • listlessness or disinterest in surroundings • presence of blood, swelling, excessive heat • reluctance or refusal to eat or drink • reluctance to move • sweating • yelping or other vocalising when touched or if animal attempts to move or perform particular tasks or grooming.
<i>Abnormal animal behaviour and conditions</i> may include:	<ul style="list-style-type: none"> • aggression in non-aggressive species • cannibalism • reluctance to eat and drink, socialise or move in relation to the usual patterns for nominated species • repetitive movements or behaviours that prevent the animal from functioning normally or lead to injury.
<i>Samples</i> may include:	<ul style="list-style-type: none"> • blood • faeces • hair • muscle • saliva • semen • skin • uterine secretions.
<i>Authorised animal treatments</i>	<ul style="list-style-type: none"> • treatments used in the routine preventative

RANGE STATEMENT	
may include:	<p>health care of animals that are available over the counter and have been approved by supervisor or are part of the approved animal care plan</p> <ul style="list-style-type: none"> • treatments prescribed by a veterinarian.
<i>Routine preventative health treatments</i> may include:	<ul style="list-style-type: none"> • control of parasites • grooming • immunisation/vaccinations as required • insect control • quarantine • routine health check-up • routine observation of waste elimination and faecal examination.

Unit Sector(s)

Unit sector	General animal studies
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

ACMGAS303A Plan for and provide nutritional requirements for animals

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit of competency covers the process of calculating rations based on animal species needs and availability of feedstuffs.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p>
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Application of the Unit

Application of the unit	<p>The unit is applicable to those working in the animal care industry where it may be necessary to plan nutritional requirements for animals in various animal care sectors, including but not restricted to, companion animals in pet shops, boarding kennels and catteries, dog and cat breeding establishments, research technology animals, native and exotic animals in zoos, wildlife parks and animal rescue and rehabilitation facilities.</p> <p>In addition to legal and ethical responsibilities, all units of competency in the ACM10 Animal Care and Management Training Package have the requirement for animals to be handled gently and calmly. The individual is required to exhibit appropriate care for animals so that stress and discomfort is minimised.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify <i>nutritional requirements</i> of animals	<p>1.1. <i>Animals</i> are classified according to natural <i>nutrient sources</i> and types of digestive systems.</p> <p>1.2. Normal feeding behaviours and nutritional requirements of a range of animals in the animal care workplace are aligned with natural diet and controlled environment animal requirements.</p> <p>1.3. <i>Feeding strategies and methods</i> to maximise activity and behavioural enrichment are evaluated.</p> <p>1.4. Characteristics of under or over supply of nutrients are identified and <i>methods used to monitor</i></p>

ELEMENT	PERFORMANCE CRITERIA
	<i>nutritional uptake</i> are evaluated and practised.
2. Evaluate food sources and calculate dietary requirements	<p>2.1. Foodstuffs are classified according to nutrient content.</p> <p>2.2. Foodstuffs are evaluated for shelf life, preparation requirements, availability and cost.</p> <p>2.3. Hazards to animal and human health from food sources are identified and methods used to manage potential risks are implemented.</p> <p>2.4. Feed weight and water requirements are estimated based on animal profiles.</p> <p>2.5. Protein, carbohydrate, vitamin and mineral supplement and fibre needs are estimated based on animal profiles.</p> <p>2.6. Other dietary issues relevant to the animal's profile are identified and factored into dietary calculations.</p> <p>2.7. Diet plans are prepared and documented after supervisor approval.</p>
3. Prepare diets and provide food and water	<p>3.1. Food is prepared in accordance with diet plan and stored safely and hygienically</p> <p>3.2. Food and water is presented in accordance to different species requirements and in compliance with organisation policy and procedures.</p>
4. Monitor feeding and watering practices	<p>4.1. Food and water consumption is monitored and recorded in accordance with organisation policy and procedures.</p> <p>4.2. Abnormal feed intake or feeding behaviour are identified and reported in accordance with organisation policy and procedures.</p> <p>4.3. Animals are monitored for condition, metabolic and behavioural changes.</p> <p>4.4. Reasons for poor response to diet are evaluated and specialist advice sought as required.</p> <p>4.5. Required dietary changes are determined in consultation with supervisor and / or others.</p> <p>4.6. Dietary variations are documented and records updated as required.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- maintain the highest standards of hygiene and infection control at all times to reduce the risk of infection and cross-infection
- measure, interpret and record animal weight, length and other relevant objective indicators of change in physiological status
- literacy skills to read and follow organisational policies and procedures, including occupational health and safety (OHS) and animal welfare; follow sequenced written instructions; and record information accurately and legibly
- oral communication skills/language to fulfill the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- numeracy skills to estimate, calculate and record routine workplace measures
- interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities
- problem-solving skills to use available resources and prioritise daily tasks
- use personal protective clothing and equipment correctly
- use safe manual handling techniques and/or equipment
- use safe waste handling and disposal procedures.

Required knowledge

- anatomical structures and features affecting feeding and nutrition
- animal classifications that influence dietary needs and styles of eating
- behavioural features related to feeding styles and unsuitable responses to diets
- feedstuffs available and approved in Australia for animals, their availability, cost, shelf life, method of storage, preparation and presentation to animals
- methods used to calculate rations, estimate weight of animals, calculate dry feed weight of food stuffs and other relevant measurements and calculations used for diet planning and food preparation
- nutrition related diseases
- organisational policies and procedures, including OHS and emergency procedures
- protein, carbohydrate, vitamin and mineral supplement and fibre needs for a range of animal groups
- physiological features affecting dietary needs
- potential causes of poor response to diets and tests used to investigate dietary problems
- principles of animal welfare and ethics
- relevant federal and state or territory OHS and animal welfare legislative

REQUIRED SKILLS AND KNOWLEDGE

- requirements and codes of practice
- safe work practices
 - sources of nutrients for particular animal classes and groups
 - workplace hygiene standards, disinfectants, cleaning agents, cleaning techniques and cleaning equipment and materials.

Evidence Guide**EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

The evidence required to demonstrate competence in this unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit. Assessors should ensure that candidates can:

- develop diets for animals in consultation with others
- prepare, store and distribute food according to animal needs, workplace protocols and procedures whilst maintaining quality control and hygiene practices
- monitor response to feeding program and modify diets as required in consultation with supervisor.

The skills and knowledge required to plan for and provide nutritional requirements for animals must be transferable to a range of work environments and contexts and include the ability to deal with unplanned events.

Context of and specific resources for assessment

Assessment of this unit is to be practical in nature and will be most appropriately assessed in an animal care industry sector workplace in which candidates are working or in a situation that reproduces normal work conditions. Workplaces can include pet shops, breeding or boarding kennels and catteries, aviaries, companion animal training, grooming establishments, animal shelters, zoos, wildlife parks, mobile animal facilities and

EVIDENCE GUIDE	
	<p>animal technology facilities.</p> <p>There must be access in either situation to a range of animals as well as relevant information, equipment and/or resources to enable one to demonstrate competence. Assessment must be relevant to the industry sector in which candidates are working and must cover a minimum of one species from at least two of the six major animal groups OR at least three breeds from within one of the six major animal groups (mammals, fish, birds, amphibians, reptiles, invertebrates).</p>
Method of assessment	<p>To ensure consistency in one's performance, competency should be demonstrated, to industry defined standards, on more than one occasion over a period of time in order to cover a variety of circumstances and over a number of assessment activities.</p> <p>The assessment strategy must include practical skills assessment. Suggested strategies for this unit are:</p> <ul style="list-style-type: none"> • written and/or oral assessment of candidate's required knowledge • observed, documented and first-hand testimonial evidence of candidate's application of practical tasks • simulation exercises that reproduce normal work conditions • third-party evidence • workplace documentation • portfolio. <p>This unit may be assessed in a holistic way with other units of competency relevant to the industry sector, workplace and job role.</p>
Guidance information for assessment	<p>Assessment methods should reflect workplace demands (e.g. literacy and numeracy demands) and the needs of particular target groups (e.g. people with disabilities, Aboriginal and Torres Strait Islander people, women, people with a language background other than English, youth and people from low socioeconomic backgrounds).</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Nutritional requirements</i> may include:</p>	<ul style="list-style-type: none"> • carbohydrate • protein • fat • roughage • vitamin • mineral and trace elements • water.
<p><i>Animals</i> may include:</p>	<ul style="list-style-type: none"> • animals commonly encountered within the industry workplace and may cover both native and introduced species • animals from the six major animal groups (mammals, birds, reptiles, amphibians, fish and invertebrates).
<p><i>Nutrient sources</i> may include:</p>	<ul style="list-style-type: none"> • carnivores: <ul style="list-style-type: none"> • insectivores • piscivores • herbivores: <ul style="list-style-type: none"> • folivores • frugivores • grainivores • mucivores • nectivores • palynivores • xylophages • omnivores.
<p><i>Feeding strategies and methods</i> may include:</p>	<ul style="list-style-type: none"> • locating food sources to ensure adequate supplies throughout the year • modifying diet for younger or special needs animals • providing food at suitable intervals for animal species • presenting food in ways that reflect natural habitat and encourage active foraging or

RANGE STATEMENT	
	<p>hunting</p> <ul style="list-style-type: none"> • preparation and distribution of food to: <ul style="list-style-type: none"> • minimise opportunities for theft by other animals or pests • encourage consumption before food deteriorates or loses nutritional quality • reflect ways that food would be available in the wild where possible • provide the best source of nutrients available within budget and seasonal availability • ensure all animals in enclosure get adequate access • removing stale, contaminated or decomposed food to discourage vermin.
<i>Methods used to monitor nutritional uptake</i> may include:	<ul style="list-style-type: none"> • blood and faecal tests to check nutritional uptake • comparing food distributed and food not eaten • estimating condition scores • weighing animals.
<i>Hazards to animal and human health from food sources</i> may include:	<ul style="list-style-type: none"> • animal movement and handling • contamination of foodstuffs from vermin, bacteria, fungus, virus and other sources • contamination from other animal diet materials that are potentially toxic to some species • manual handling and general food preparation, storage and distribution equipment • organic and other dusts • plants and other materials thrown into animal enclosures by the public • possibility of zoonotic infection • shelf life of foodstuffs.
<i>Animal profiles</i> may include:	<ul style="list-style-type: none"> • species classifications: <ul style="list-style-type: none"> • age • sex • breeding status • other characteristics • seasonal requirements, including hibernating animals • climatic requirements • activity levels

RANGE STATEMENT	
<p><i>Species requirements</i> may include:</p>	<ul style="list-style-type: none"> • food presentation needs: <ul style="list-style-type: none"> • fresh grazing • fresh meat • live food • food sources: <ul style="list-style-type: none"> • catering for animals recovering from illness or injury • highly specific food sources for particular animals such as koalas • seasonal availability • food preparation: <ul style="list-style-type: none"> • dried or semi-dried foodstuffs • stage of decomposition of meat products • stage of development of plants or insects • vitamin, mineral and other supplements • whole items to allow opportunity for animal to prepare • water requirements: <ul style="list-style-type: none"> • running water • water from other food sources.
<p><i>Abnormal feed intake or feeding behaviour</i> may include:</p>	<ul style="list-style-type: none"> • demonstrating signs of stress during eating activities • disinterest in food • drinking excess water • gorging food • not drinking normal amounts of water • reluctance to eat when other animals are nearby • selectively eating.
<p><i>Reasons for poor response to diet</i> may include:</p>	<ul style="list-style-type: none"> • health problems: <ul style="list-style-type: none"> • digestive system disorder • metabolic disorder • parasite load • teeth condition • other underlying illness • food sources: <ul style="list-style-type: none"> • food presented in an inappropriate way for species • food quality • food quantity

RANGE STATEMENT

	<ul style="list-style-type: none"> • food spoilage due to weather and climatic conditions or poor storage • inappropriate food sources for species • environmental and behavioural conditions: <ul style="list-style-type: none"> • dominant animals taking most of food • lack of space for individual animals to feed • distress caused by proximity of other animals nearby.
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Unit Sector(s)

Unit sector	Animal studies
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

ACMGAS305A Rescue animals and apply basic first aid

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit of competency covers the process of rescuing and restraining animals and providing basic first aid.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p>
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Application of the Unit

Application of the unit	<p>The unit is applicable to animal keepers and carers where it may be necessary to identify where assistance is required in the rescue of animals and the management of animal stress and injuries.</p> <p>In addition to legal and ethical responsibilities, all units of competency in the ACM10 Animal Care and Management Training Package have the requirement for animals to be handled gently and calmly. The individual is required to exhibit appropriate care for animals so that stress and discomfort is minimised.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess the situation and plan response	<p>1.1. <i>Risk posed to self, others and animals</i> is assessed.</p> <p>1.2. <i>Options for assisting animals</i> are evaluated and procedures selected with reference to workplace protocols and regulations.</p> <p>1.3. <i>Animals</i> are identified and appropriate <i>equipment</i> is selected for the rescue.</p> <p>1.4. <i>Occupational health and safety (OHS) procedures</i> and <i>personal protective equipment</i> are used at all times when handling animals.</p>
2. Capture and protect animal	<p>2.1. <i>Basic animal care</i> is provided to minimise stress to animals.</p> <p>2.2. Animal is caught and handled <i>safely and humanely</i> to minimise pain and potential injuries.</p> <p>2.3. Animal is reassured in a caring manner and made comfortable using available resources.</p>

ELEMENT	PERFORMANCE CRITERIA
	2.4. Physical condition and vital signs of the animal are assessed.
3. Provide first aid assistance	3.1. Basic first aid is provided in accordance with <i>established animal first aid procedures</i> . 3.2. Treatment is sought from others as appropriate and required. 3.3. <i>Advice and assistance</i> are sought from supervisor or appropriate personnel in respect to future options for animal. 3.4. <i>Information on animal</i> is collected and recorded in accordance with legislative and organisational requirements.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- complete relevant work-related documentation and reports
- employ safe and environmentally responsible organisational systems and procedures when handling animals
- evaluate behaviour, signs, symptoms and objective measures that may indicate animal health is at risk
- follow workplace procedures for hazard identification and risk control
- gather and provide information in response to workplace requirements
- maintain the highest standards of hygiene and infection control at all times to reduce the risk of infection and cross-infection
- observe, document and report findings on animal health and behaviour using workplace protocols and procedures
- respond to emergencies in line with practised actions
- literacy skills to read and follow organisational policies and procedures, including OHS
- numeracy skills to estimate, calculate and record routine workplace measures
- oral communication skills/language to fulfill the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental

REQUIRED SKILLS AND KNOWLEDGE

abilities

- problem-solving skills to use available resources, prioritise rescue tasks and determine who to contact for assistance
- use personal protective clothing and equipment correctly
- use safe manual handling techniques and/or equipment.

Required knowledge

- anatomical orientation terminology
- animal emergency network, including animal welfare bodies and support facilities
- animal first aid techniques
- animal temperaments and behaviours related to the associated hazards and risks to animals and staff during animal capture, restraint, inspection and treatment
- communication procedures and systems, and technology relevant to the organisation and the individual's work responsibilities
- examination techniques for health status
- first aid casualty management principles
- hazards associated with handling animals and control measures
- methods used to identify animals
- methods used to capture, restrain and examine animals including equipment
- natural animal behaviour relating to the characteristics of the species, age, health status and social needs
- organisation policies and procedures, including OHS and emergency procedures
- personal protective clothing and equipment and when and how it should be used
- physical conditions and vital signs of animals
- principles of animal welfare and ethics
- physiological features of animals
- relevant state or territory legislation and regulations relating to the practice of veterinary science, OHS, animal welfare and waste disposal
- safe animal handling techniques and procedures
- safe work practices
- workplace hygiene standards, disinfectants, cleaning agents, cleaning techniques and cleaning equipment and materials
- zoonotic diseases.

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment

EVIDENCE GUIDE	
Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>The evidence required to demonstrate competence in this unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit. Assessors should ensure that candidates can:</p> <ul style="list-style-type: none"> • plan rescue response through situation assessment • communicate effectively with others and follow instructions • carry out rescue procedures and protect animal in accordance with OHS requirements • apply basic animal care and first aid • seek advice and assistance regarding animal care and future options • gather information on animal and maintain records. <p>The skills and knowledge required to rescue animals and apply basic first aid must be transferable to a range of work environments and contexts and include the ability to deal with unplanned events.</p>
Context of and specific resources for assessment	<p>Assessment of this unit is to be practical in nature and will be most appropriately assessed in an animal care workplace or in a situation that reproduces normal work conditions.</p> <p>There must be access to a range of animals as well as relevant information, equipment and/or resources to enable one to demonstrate competence. Assessment must be relevant to the industry sector in which candidates are working and must cover a minimum of one species from at least two of the six major animal groups OR at least three breeds from within one of the six major animal groups (mammals, fish, birds, amphibians, reptiles, invertebrates).</p>
Method of assessment	<p>To ensure consistency in one's performance, competency should be demonstrated, to industry defined standards, on more than one occasion over a period of time in order to cover a variety of circumstances and where possible,</p>

EVIDENCE GUIDE	
	<p>over a number of assessment activities.</p> <p>The assessment strategy must include practical skills assessment. Suggested strategies for this unit are:</p> <ul style="list-style-type: none"> • written and/or oral assessment of candidate's required knowledge • observed, documented and first-hand testimonial evidence of candidate's application of practical tasks • simulation exercises that reproduce normal work conditions • third-party evidence • workplace documentation • portfolio. <p>This unit may be assessed in a holistic way with other units of competency relevant to the industry sector, workplace and job role.</p>
Guidance information for assessment	<p>Assessment methods should reflect workplace demands (e.g. literacy and numeracy demands) and the needs of particular target groups (e.g. people with disabilities, Aboriginal and Torres Strait Islander people, women, people with a language background other than English, youth and people from low socioeconomic backgrounds).</p>

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Risk posed to self, others and animals</i> may include:</p>	<ul style="list-style-type: none"> • to self and others from animals: <ul style="list-style-type: none"> • attack by other animals • bites, kicks and scratches • envenomation

RANGE STATEMENT

	<ul style="list-style-type: none"> • crush injuries • zoonoses and infective agent release • to self and others from humans: <ul style="list-style-type: none"> • injury caused by inexperienced handling capture techniques or by not following protocols • unsuccessful rescue due to: <ul style="list-style-type: none"> • inexperienced assistants using poor techniques • using inadequate or unsuitable equipment • not following agreed protocols • poor communication of procedures to be followed • environmental hazards to self, others and animals: <ul style="list-style-type: none"> • contaminated sites • chemical spillage • electrocution • fire and smoke • flood • potential cave-ins • rocky or unstable terrain • traffic • weather and climatic conditions • to animals: <ul style="list-style-type: none"> • inability to assess extent of injury and needs due to inaccessible or remote location • inability to rescue due to lack of suitable equipment or poor site access • injury as a result of capture methods used • injury as a result of inexperienced handlers or volunteers • injury or death due to the trauma of rescue or capture.
<p><i>Options for assisting animals</i> may include:</p>	<ul style="list-style-type: none"> • animal needs: <ul style="list-style-type: none"> • food, water and shelter • reassurance • restraint to prevent further trauma or injury

RANGE STATEMENT	
	<ul style="list-style-type: none"> • assistance required from others: <ul style="list-style-type: none"> • emergency services agencies • machinery operator • rescuers with specific animal handling skills • utilities operators to control power, gas, water and other services • volunteers with little or no experience to assist • veterinarian or other animal specialist authorised to act in emergencies • methods and equipment needed to: <ul style="list-style-type: none"> • assess animal condition and possible injuries • catch animal • rescue animal.
<i>Animals</i> may include:	<ul style="list-style-type: none"> • animals commonly encountered within the industry workplace and may cover both native and introduced species • animals from the six major animal groups (mammals, birds, reptiles, amphibians, fish and invertebrates).
<i>Equipment</i> may include:	<ul style="list-style-type: none"> • catching equipment relevant to species to be rescued: <ul style="list-style-type: none"> • barriers, screens and yards • catch poles and nets • food and enticement toys • halters and collars • nets, bags and hoods • slings and cradles • transport equipment • rescue equipment: <ul style="list-style-type: none"> • concrete and masonry cutting equipment • cranes and winches • digging equipment and machinery • animal needs: <ul style="list-style-type: none"> • food, water and shelter • reassurance • first aid equipment: <ul style="list-style-type: none"> • shock treatment • temperature regulation items (e.g. blankets

RANGE STATEMENT	
	<p>and water)</p> <ul style="list-style-type: none"> wound and injury care items.
<p><i>OHS procedures</i> and <i>personal protective equipment</i> may include:</p>	<ul style="list-style-type: none"> OHS procedures: <ul style="list-style-type: none"> establishing a clear chain of command ensuring site safety for personnel and animals is assessed and appropriate precautions are taken prior to commencing rescue ensuring equipment is in working order and safe to use in particular circumstances identifying possible escape routes of animals and minimising opportunities of escape during rescue ensuring first aid equipment for personnel and animals is available following workplace protocols for advising of planned routes or locations if working away from regular worksite ensuring staff with experience using rescue equipment are utilised if available taking adequate fluids and w personal protective equipment: <ul style="list-style-type: none"> communication equipment infection control equipment protective clothing: <ul style="list-style-type: none"> boots, gloves, goggles and helmet sun and wet weather protection from head and cold protection from animal scratches and bites protection from terrain, chemical spills or other hazards safety lines and harness.
<p><i>Basic animal care</i> may include:</p>	<ul style="list-style-type: none"> suitable containment and transport provision of warmth not feeding if advised providing a quiet environment or darkness when appropriate.
<p><i>Safely and humanely</i> handling animals may include:</p>	<ul style="list-style-type: none"> appropriate use of restraints correct use of personal protective equipment

RANGE STATEMENT	
	<ul style="list-style-type: none"> and rescue equipment • observing stress to the animal • allocating sufficient time to the process • considering animals' welfare at all times
<i>Established animal first aid procedures</i> may include:	<ul style="list-style-type: none"> • stop bleeding • minimise impact of shock by keeping animal quiet, warm and away from activity or noise • immobilise limb injuries if soft tissue damage or fractures are suspected if possible • hose or apply water if available in cases of burns or heat exhaustion • administration of emetics or antidotes under instruction if appropriate • feeding or watering as advised • transporting animal to veterinary assistance as soon as possible.
<i>Advice and assistance</i> may include:	<ul style="list-style-type: none"> • veterinary consultation: <ul style="list-style-type: none"> • immediate first aid care and treatment • surgical or medication needs • potential of animal to recover from emergency situation • animal quality of life evaluation post-emergency recovery • diet options • rehabilitation and therapy options: <ul style="list-style-type: none"> • carers or volunteers looking after animals • devising structured rehabilitation and release programs for wildlife • returning domestic pets to owners • giving animals to a captive animal facility • insurance considerations: <ul style="list-style-type: none"> • if animal was insured what are instructions from underwriter regarding care, treatment option and future use • if animal rescue has impact on business insurance what are instructions from underwriter.
<i>Information on animal</i> may include:	<ul style="list-style-type: none"> • identification of animal • extent of injuries • treatment provided

RANGE STATEMENT

	<ul style="list-style-type: none"> • equipment used • witness details and version of events • owner contact details if owner identified • reasons for animal emergency in the first place • procedure followed during rescue • issues arising from rescue that could lead to improved success in future operations.
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Unit Sector(s)

Unit sector	Animal studies
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

ACMWHS401A Maintain workplace health and safety processes

Modification History

Release	TP Version	Comments
1	ACM10v3	Initial release

Unit Descriptor

This Unit of Competency covers the process required by an employee with supervisory responsibilities, to maintain organisation workplace health and safety processes.

Application of the Unit

This Unit is intended to be applied at the level of team leader or supervisor.

NOTE: The terms Occupational Health and Safety (OHS) and Work Health and Safety (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the National Model WHS Legislation has not been implemented Registered Training Organisations are advised to contextualise the unit of competency by referring to the existing State/Territory OHS Legislative requirements as well as any specific workplace risks, hazards and associated safety practices.

In addition to legal and ethical responsibilities, all Units of Competency in the ACM10 Animal Care and Management Training Package have the requirement for animals to be handled gently and calmly. The individual is required to exhibit appropriate care for animals so that stress and discomfort is minimised.

Licensing/Regulatory Information

Licensing, legislative, regulatory or certification requirements may apply to this unit. Therefore, it will be necessary to check with the relevant State or Territory regulators for current licensing, legislative or regulatory requirements before undertaking this unit.

Pre-Requisites

Nil

Employability Skills Information

This Unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

- | | |
|--|--|
| 1. Provide information to the work group | <p>1.1 Relevant requirements of <i>workplace health and safety legislation, standards, codes of practice/compliance codes, guidance materials</i> and safe working procedures and practices are explained to the work group clearly and accurately.</p> <p>1.2 Information on <i>organisation policies and procedures</i> is provided to the work group in a readily accessible manner and clearly explained.</p> <p>1.3 Roles and responsibilities of health and safety representatives and workplace health and safety committees, supervisors and managers are clearly explained.</p> <p>1.4 Information is provided to the work group, in an accessible and understandable format, on <i>hazards</i>, the outcomes of <i>risk assessments</i>, and required <i>risk controls</i>.</p> |
| 2. Ensure others are able to implement safe work practices | <p>2.1 <i>Personal protective equipment</i> appropriate to the work is available and functional.</p> <p>2.2 Processes are implemented to confirm that others in the work group can identify hazards, assess risks and required risk controls and are following safe work practices, and organisation policies and procedures.</p> <p>2.3 Workplace health and safety training needs are identified and either addressed or these needs are reported to those with control.</p> |
| 3. Implement workplace health and safety participative processes | <p>3.1 The work group is consulted and provided with advice in relation to workplace health and safety matters relevant to their work.</p> <p>3.2 Workplace health and safety issues raised are dealt with</p> |

ELEMENT**PERFORMANCE CRITERIA**

- promptly, and in accordance with organisation procedures and legislative requirements, or referred to appropriate personnel.
- 3.3 Outcomes of consultation regarding workplace health and safety are recorded and promptly communicated to the work group.
4. Monitor compliance with work procedures
- 4.1 **Work procedures** are checked for availability, clarity and completeness, addressing any deficiencies or reporting them to appropriate persons.
- 4.2 Any deviations from procedures are identified and addressed or reported to appropriate persons.
- 4.3 **Hazard identification and reporting processes** are evaluated for effectiveness and any deficiencies are addressed or reported to appropriate persons.
- 4.4 **Workplace health and safety housekeeping practices** are monitored to ensure that workplace standards are maintained, and action is taken to address any deficiencies.
- 4.5 Own behaviour is consistent with organisation safe working procedures and practices.
5. Implement hazard identification, risk assessment and risk control procedures
- 5.1 Hazards are identified, assessed and eliminated with **residual risk** reported according to organisation procedures.
- 5.2 Risk assessments are conducted.
- 5.3 Control measures are developed, taking account of the **hierarchy of risk control**.
- 5.4 Outcomes of risk assessments are implemented and identified risk controls supported.
- 5.5 Deficiencies in workplace health and safety risk controls are identified and addressed and/or reported in accordance with organisation procedures.
- 5.6 Personal professional limitations are identified and **expert advice** is sought as required.
6. Implement organisation procedures for maintaining workplace health and safety records
- 6.1 Feedback is obtained to ensure that work group is aware of organisation reporting requirements.
- 6.2 **Workplace health and safety records** are reviewed to confirm that they are completed in an accurate, thorough and timely manner in accordance with **legislative** and organisation requirements.
- 6.3 Aggregate information and data from records is used to identify hazards and monitor risk controls.
7. Implement emergency procedures
- 7.1 Feedback is obtained to ensure that **emergency** procedures are available and known by the work group.
- 7.2 Processes are implemented to ensure that **emergency**

ELEMENT**PERFORMANCE CRITERIA**

equipment is available and routinely checked for functionality.

7.3 Processes are implemented to ensure that others in the work group are able to respond appropriately to emergencies.

7.4 Investigations are conducted, or contributed to, to identify cause of emergencies.

7.5 Control measures to prevent recurrence and minimise risk of emergencies are identified and implemented or supported.

Required Skills and Knowledge

This section describes the skills and knowledge required for this Unit.

Required skills

Required skills include:

It is critical that the candidate demonstrate the ability to maintain workplace health and safety processes in the work context particularly in relation to the supervision of a small workgroup by:

- addressing their own health and safety
- addressing health and safety of others who may be affected by their actions
- supporting members of the workgroup who may be less experienced in the workplace in regard to workplace health and safety matters
- taking initiative to address hazards and manage risks at a systemic level.

In addition, the candidate must be able to:

- communicate with personnel in the work team, other work teams, managers and experts advisers
- conduct team meetings
- relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
- supervise and direct staff
- take into account, use and promote opportunities to address waste minimisation, environmental responsibility and sustainable practice issues
- use language and literacy skills to interpret workplace health and safety documentation
- use technical skills to access workplace health and safety information.

Required knowledge

Required knowledge includes:

- general duty requirements of the national Work Health and Safety model and relevant

state/territory legislation that influence regulatory requirements relevant to the particular industry/type of worksite

- hazard identification procedures such as workplace inspections and review of workplace data
- knowledge and understanding of guidance material including codes of practice/compliance codes relevant to the particular industry/type of work site
- legislative requirements for record keeping and reporting
- nature of common workplace hazards for example chemicals, noise, manual handling, work postures, underfoot hazards and moving parts of machinery
- personal protective equipment requirements, including use, storage and maintenance
- principles of risk management including the hierarchy of risk control and its application
- relationship between workplace health and safety and sustainability in the workplace, including the importance of maintaining safety in the workplace to establishing and maintaining environmental, economic, workforce and social sustainability
- roles and responsibilities of health and safety representatives and workplace health and safety committees
- roles and responsibilities of workers, officers and Persons Conducting a Business or Undertaking (PCBUs)
- standards and guidelines related to emergency procedures
- sources of workplace health and safety information both internal and external to the workplace, including Safe Work Australia and relevant state/territory regulators
- the difference between hazard and risk
- workplace specific information, including:
 - designated person for raising workplace health and safety issues
 - hazard identification procedures relevant to the hazards in their workplace
 - hazards of the particular work environment
 - organisation procedures related to workplace health and safety including hazard, incident and injury reporting, hazard identification, risk assessment and control, consultation and participation, incident investigation, record keeping
 - potential emergency situations, alarms and signals and required response.
 - risk controls for specific hazards
 - work procedures related to the work of the team/work group, including use of personal protective equipment and emergency response.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this Unit	<p>To demonstrate competence in this Unit, a candidate must be able to provide evidence of maintaining workplace health and safety processes in the workplace particularly in relation to the supervision of a small workgroup.</p> <p>Evidence gathered by an assessor to determine competence will include:</p> <ul style="list-style-type: none"> • written or verbal responses to scenarios and case studies • provision of workplace examples • evidence from workplace supervisor reports • portfolio of workplace documentation. <p>Evidence of workplace performance over time must be obtained to inform a judgement of competence.</p>
Context of and specific resources for assessment	<p>Products that could be used as evidence include:</p> <ul style="list-style-type: none"> • verbal and written responses to verbal, written or physical scenarios • completed examples of information provided to work group, risk assessments, risk controls developed, reports to managers, reports on workplace inspections, audits and emergency exercises • reports from work group members and supervisor. <p>Processes that could be used as evidence include:</p> <ul style="list-style-type: none"> • how information transfer was organised and conducted • how risk assessments were conducted • how deviations from workplace procedures were addressed.
Method of assessment	<p>This Unit should be assessed together with other Units of Competence relevant to the function or work role.</p>
Guidance information for assessment	<p>Access and equity considerations:</p> <ul style="list-style-type: none"> • all assessment should be applied with respect to relevant work-related access and equity issues • competence should reflect an ability to work in a culturally diverse environment. • assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on Aboriginal and/or Torres Strait Islander clients and communities.

Range Statement

<p>The range statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Workplace health and safety legislation</i></p>	<p>Workplace health and safety legislation varies in different states and will include:</p> <ul style="list-style-type: none"> • National Work Health and Safety Model • current relevant State/Territory workplace health and safety legislation • relevant state/territory Manual Handling Code of Conduct.
<p><i>Standards</i></p>	<p>Standards include documents produced by national bodies, workplace health and safety regulators or industry bodies, that prescribe preventative action to avert occupational deaths, injuries and diseases.</p> <p>Standards are of an advisory nature only, except where a law adopts the standard and thus makes it mandatory.</p> <p>They may be called up as evidence in court or other enforcement action.</p>
<p><i>Codes of practice/compliance codes</i></p>	<p>Codes of practice/compliance codes are documents generally prepared to provide advice to employers and workers, of an acceptable way of achieving standards. They may:</p> <ul style="list-style-type: none"> • be incorporated into regulations • not relate to a standard • be called up as evidence in court or other enforcement action.
<p><i>Guidance material</i></p>	<p>Guidance material is an advisory technical document, providing detailed information for use by unions, employers, management, workplace health and safety committee members and representatives, safety officers and others requiring guidance. It</p> <ul style="list-style-type: none"> • advises on 'what to do' and 'how to do it'. • has no legal standing.

<p><i>Organisation policies and procedures</i></p>	<p>Organisation policies and procedures include policies and procedures underpinning the management of workplace health and safety, including:</p> <ul style="list-style-type: none"> • hazard, incident and injury reporting • hazard identification, risk assessment and control • human resources policies and procedures such as harassment and grievance procedures, inductions programs, team meetings, alcohol and drug policies • consultation and participation • incident investigation • quality system documentation.
<p><i>Hazard</i></p>	<p>A hazard is a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these.</p> <p>Common workplace hazards (from Safe Work Australia <i>Work Health and Safety Risks - Code of Practice</i>) include:</p> <ul style="list-style-type: none"> • manual tasks - overexertion or repetitive movement can cause muscular strain • gravity - falling objects, falls, slips and trips of people can cause fractures, bruises, lacerations, dislocations, concussion, permanent injuries or death • electricity - potential ignition source. Exposure to live electrical wires can cause shock, burns or death from electrocution • machinery and equipment - being hit by moving vehicles, or being caught by moving parts of machinery can cause fractures, bruises, lacerations, dislocations, permanent injuries or death • hazardous chemicals - chemicals (such as acids, hydrocarbons, heavy metals) and dusts (such as asbestos and silica) can cause respiratory illnesses, cancers or dermatitis • extreme temperatures - heat can cause burns, heat stroke or fatigue. Cold can cause hypothermia or frost bite • noise - exposure to loud noise can cause permanent hearing damage • radiation - ultra violet, welding arc flashes, micro waves and lasers can cause burns, cancer or blindness

	<ul style="list-style-type: none"> • biological - micro-organisms can cause hepatitis, legionnaires' disease, Q fever, HIV/AIDS or allergies • psychosocial hazards - effects of work-related stress, bullying, violence and work-related fatigue. <p>Examples of hazards in an animal care environment may include:</p> <ul style="list-style-type: none"> • animal bites, envenomation, kicks, scratches or crush injuries • biological hazardous waste • bodily fluids • chemicals and medicines • sharps • zoonotic and exotic disease possibilities.
<i>Risk</i>	Risk in relation to any hazard means the probability and consequences of injury, illness or damage resulting from exposure to a hazard.
<i>Risk assessments</i>	<p>Risk assessments involve analysing a hazard to identify factors influencing the risk and the range of potential consequences:</p> <ul style="list-style-type: none"> • effectiveness of existing controls • likelihood of each consequence considering exposure and hazard level <p>And combining these in some way to obtain a level of risk.</p>
<i>Risk controls</i>	Risk controls include the devices and methods to, where practicable, eliminate the hazard or, where this is not practicable, minimise the risk associated with the hazard.
<i>Personal protective equipment</i>	<p>Personal protective equipment includes equipment worn by a person to provide protection from hazards, by providing a physical barrier between the person and the hazard and may include:</p> <ul style="list-style-type: none"> • head protection • face and eye protection • respiratory protection • hearing protection • hand protection • clothing and footwear.
<i>Work procedures</i>	Work procedures include:

	<ul style="list-style-type: none"> • batch specifications • operator or manufacturer manuals • procedures for selecting, fitting, using and maintaining personal protective equipment • standard operating procedures.
<i>Hazard identification</i>	<p>Hazards identification is the process of identifying sources of harm, and may be required:</p> <ul style="list-style-type: none"> • before new forms of work and organisation of work are implemented • before changes are made to workplace, equipment, work processes or work arrangements • as part of planning major tasks or activities, such as equipment shutdowns • following an incident report • when new knowledge becomes available • at regular intervals during normal operations • prior to disposal of equipment, or materials.
<i>Reporting procedures</i>	<p>Reporting procedures include:</p> <ul style="list-style-type: none"> • hazards reports • incident reports • maintenance requests and reports • reports on completion of inspections • reports of non-compliance with work procedures • reporting on progress of action plans.
<i>Workplace health and safety housekeeping practices</i>	<p>Workplace health and safety housekeeping practices address items such as:</p> <ul style="list-style-type: none"> • functioning services, such as lighting, air flow and ventilation, emergency lighting • storage areas, including manual handling issues, storage, personal protective equipment • signage • underfoot conditions • unobstructed walkways and emergency exits • work space around equipment and machinery • workplace cleanliness and tidiness.
<i>Residual risk</i>	<p>Residual risk is the risk which remains after controls have been implemented.</p>
<i>Hierarchy of risk control</i>	<p>Hierarchy of risk control (from Safe Work Australia <i>Work Health and Safety Risks - Code of Practice</i>) includes:</p>

	<ul style="list-style-type: none"> • Level 1 controls <ul style="list-style-type: none"> • eliminate hazards • Level 2 controls <ul style="list-style-type: none"> • substitute the hazard with something safer • isolate the hazard from people • use engineering controls • Level 3 controls <ul style="list-style-type: none"> • use administrative controls • use personal protective equipment (PPE).
<i>Expert advice</i>	<p>Expert advice can be obtained from persons either internal or external to the organisation including:</p> <ul style="list-style-type: none"> • audiologists • ergonomists • employee assistance and workplace counselling services • occupational health professionals • occupational hygienists • health and safety representatives • workplace health and safety committees • safety engineers • safety professionals • toxicologists <p>Expert advice may also be obtained from other persons providing specific technical knowledge or expertise in areas related to workplace health and safety including:</p> <ul style="list-style-type: none"> • engineers (e.g. design, acoustic, mechanical, civil) • health professionals • injury management advisors • legal practitioners with experience in workplace health and safety • maintenance and trade persons • regulatory bodies • risk managers • security and emergency response personnel • workplace trainers and assessors.
<i>Workplace health and safety records</i>	<p>Workplace health and safety records may include:</p> <ul style="list-style-type: none"> • employees handbooks • environmental monitoring records • first aid records

	<ul style="list-style-type: none"> • hazard, incident and investigation reports • health surveillance records • job safety analyses (JSAs), safe work method statements and risk assessments • maintenance and testing reports • material safety data sheets (MSDSs) and registers • minutes of meetings • plant and equipment operation records, including those relevant to registered plant • training records • workplace inspection reports.
<i>Legislative</i>	<p>Legislative requirements for record keeping include those specified under workplace health and safety legislation for:</p> <ul style="list-style-type: none"> • serious incident and injury reporting • registered plant • hazardous substances and dangerous goods • environmental monitoring • health surveillance <p>Privacy legislation.</p>
<i>Emergencies</i>	<p>Emergencies may include any abnormal or sudden event that requires immediate action, such as:</p> <ul style="list-style-type: none"> • serious injury events • events requiring evacuation • explosion and bomb alerts • external emergencies and natural disasters, such as flood, storm and traffic accident impacting on the organisation • fires and explosions • hazardous substance and chemical spills • internal emergencies, such as loss of power or water supply and structural collapse • security emergencies, such as armed robberies, intruders and disturbed persons.
<i>Emergency equipment</i>	<p>Emergency equipment is equipment required as part of the emergency response by the organisation and includes:</p> <ul style="list-style-type: none"> • communication equipment • evacuation alarms • evacuation equipment, especially that for disabled persons

	<ul style="list-style-type: none">• eye wash shower or portable eye washes• fire extinguishers and equipment• first aid equipment• items of clothing, such as coloured hats and vests• torches.
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Unit Sector(s)

Workplace health and safety

ACMWHS501A Manage workplace health and safety processes

Modification History

Release	TP Version	Comments
1	ACM10v3	Initial release

Unit Descriptor

This Unit of Competency covers the process required by an individual responsible for ongoing management of workplace health and safety within an area of management responsibility, where the workplace health and safety management processes have been set up by other persons, either internal or external to the organisation.

Application of the Unit

This Unit is intended for application by a manager of a small organisation or several work groups or a larger group within an organisation. Work is likely to have a focus on maintaining already established processes and the Unit assumes that workplace health and safety advice and expertise would be available.

NOTE: The terms Occupational Health and Safety (OHS) and Work Health and Safety (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the National Model WHS Legislation has not been implemented Registered Training Organisations are advised to contextualise the unit of competency by referring to the existing State/Territory OHS Legislative requirements as well as any specific workplace risks, hazards and associated safety practices.

In addition to legal and ethical responsibilities, all Units of Competency in the ACM10 Animal Care and Management Training Package have the requirement for animals to be handled gently and calmly. The individual is required to exhibit appropriate care for animals so that stress and discomfort is minimised.

Licensing/Regulatory Information

Licensing, legislative, regulatory or certification requirements may apply to this unit. Therefore, it will be necessary to check with the relevant State or Territory regulators for current licensing, legislative or regulatory requirements before undertaking this unit.

Pre-Requisites

Nil

Employability Skills Information

This Unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

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|---|---|
| 1. Manage workplace health and safety information and records | <p>1.1 Relevant <i>workplace health and safety legislation, standards, codes of practice/compliance codes, guidance materials</i> and <i>other sources of workplace health and safety information</i> are identified, accessed and evaluated for their relevance to the specific work context.</p> <p>1.2 Information on workplace health and safety requirements, trends and <i>risk controls</i> are collected, collated and provided.</p> <p>1.3 Records and record keeping processes are reviewed to ensure that <i>legal requirements</i> for <i>workplace health and safety record</i> keeping are identified and addressed.</p> <p>1.4 Processes are implemented and monitored to ensure that workplace health and safety records are accurately completed, collected and stored in accordance with legal requirements and workplace procedures.</p> |
| 2. Manage workplace health and safety participative processes | <p>2.1 <i>Participative processes</i> are monitored to ensure compliance with legislative requirements and <i>organisation procedures</i>.</p> <p>2.2 Information provided to employees is evaluated to ensure it is in a readily accessible and understandable format.</p> <p>2.3 Processes are implemented and monitored to ensure that workgroup members have an opportunity, either directly or through their representative, to contribute to decisions that may affect their health and safety.</p> <p>2.4 Processes for addressing workplace health and safety issues</p> |

ELEMENT**PERFORMANCE CRITERIA**

- are evaluated to ensure issues raised through *consultation* are resolved promptly and in line with organisation procedures and legislative requirements.
- 2.5 Information is provided promptly about the outcomes of consultation in a format and medium that is readily accessible to employees.
3. Manage workplace health and safety risk management processes
- 3.1 Processes for *hazard, incident*, and injury reporting and investigation are reviewed to ensure compliance with legislative requirements and to inform future prevention strategies.
- 3.2 Processes are monitored to ensure that *hazard identification* and *risk assessments* occur according to organisation procedures.
- 3.3 Risk controls and hazard specific procedures are checked to ensure consistency with the *hierarchy of risk control* and are monitored to support compliance with legislative and regulatory requirements.
- 3.4 Any workplace health and safety implications of either proposed or implemented changes to the workplace, work processes or organisation of work are identified and addressed.
- 3.5 Limits of own professional expertise are recognised and *expert advisors* are consulted as required.
4. Manage workplace health and safety training program
- 4.1 Workplace health and safety training needs assessment is undertaken for workgroup members that takes account of legislative and regulatory requirements, internal policies and procedures, existing skills of workgroup members and risk control requirements.
- 4.2 Training programs are implemented and monitored to ensure identified workplace health and safety training requirements are addressed.
- 4.3 Processes to ensure that all new employees receive *workplace health and safety induction* are implemented and monitored.
- 4.4 Relevant workplace health and safety and training specialists are accessed and consulted as required, in the development and implementation of the workplace health and safety training program.
5. Manage workplace health and safety continuous improvement process
- 5.1 Input from individuals and workgroup is considered in identifying and implementing workplace health and safety improvement.
- 5.2 Workplace health and safety priorities are determined in consultation with appropriate managers and *stakeholders*.

ELEMENT**PERFORMANCE CRITERIA**

5.3 *Workplace health and safety action plans* are developed taking account of priorities and training needs.

5.4 Achievements against the workplace health and safety plans are monitored and plans updated accordingly.

Required Skills and Knowledge

This section describes the skills and knowledge required for this Unit.

Required skills

Required skills include:

It is critical that the candidate demonstrate the ability to manage workplace health and safety processes for a small organisation or group(s) of persons undertaking a range of work.

In addition, the candidate must be able to:

- apply an action planning process
- assimilate information from a range of sources to evaluate effectiveness of processes
- communicate with supervisors, other managers, staff, workplace health and safety inspectors and expert advisers in a range of contexts, and using a range of media and formats
- conduct effective meetings
- develop solutions to complex workplace health and safety problems, utilising information from a range of sources
- identify and access appropriate external support services
- relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
- take into account and support staff to use opportunities to address waste minimisation, environmental responsibility and sustainable practice issues
- use language and literacy and conceptual skills to analyse and evaluate workplace health and safety information
- use technical skills to access workplace health and safety information.

Required knowledge

Required knowledge includes:

- knowledge and understanding of guidance material including codes of practice/compliance codes relevant to the particular industry/type of work site
- legal and practical requirements for workplace health and safety training
- legal requirements for workplace health and safety record keeping and reporting
- legislative requirements for consultation

- relationship between workplace health and safety and sustainability in the workplace, including the importance of maintaining safety in the workplace to establishing and maintaining environmental, economic, workforce and social sustainability
- risk assessment process including:
 - hazard identification procedures
 - principles of risk assessment
 - the hierarchy of risk control and its application
 - the difference between hazard and risk
- roles and responsibilities of health and safety representatives and workplace health and safety committees
- roles and responsibilities of workers, officers and Persons Conducting a Business or Undertaking (PCBUs)
- sources of workplace health and safety information both internal and external to the workplace, including Safe Work Australia and relevant state/territory regulators
- systems for identifying skill needs, for example:
 - identifying additional training needs of learners
 - performance reviews
 - training needs analysis
- the characteristics and composition of the workforce and how they may impact on the management of workplace health and safety
- the roles and responsibilities of employees, supervisors and managers in the workplace
- understanding of the national Work Health and Safety model and relevant state/territory legislation that influence regulatory requirements relevant to the particular industry/type of work site
- workplace specific information, including:
 - awards and enterprise agreements that impact on the particular workplace
 - designated person for raising workplace health and safety issues
 - hazard identification procedures relevant to the hazards in their workplace
 - hazards of the particular work environment and how they cause harm
 - organisation procedures related to workplace health and safety including hazard, incident and injury reporting, hazard identification, risk assessment and control, consultation and participation, incident investigation, record keeping
 - relevant workplace health and safety training and training providers
 - the characteristics and composition of the workforce and how they may impact on the management of workplace health and safety
 - workplace support services eg. employee assistance providers, workplace counselling and medical services.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the

performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this Unit	<p>To demonstrate competence in this Unit, a candidate must be able to provide evidence of managing workplace health and safety processes for a small organisation or a group of persons undertaking a range of work.</p> <p>Evidence gathered by an assessor to determine competence will include:</p> <ul style="list-style-type: none"> • written or verbal responses to scenarios and case studies • provision of workplace examples • reports from persons who have been involved in the management processes • portfolio of workplace documentation. <p>Evidence of workplace performance over time must be obtained to inform a judgement of competence.</p>
Context of and specific resources for assessment	<p>Products that could be used as evidence include:</p> <ul style="list-style-type: none"> • verbal and written responses to verbal, written or physical scenarios • demonstrated action to scenarios, simulations and role plays • completed reports to senior managers • written directions, emails, memos and other information provided to supervisors in area of responsibility • reports from team leaders, senior managers, other managers, specialist advisors.. <p>Processes that could be used as evidence include:</p> <ul style="list-style-type: none"> • how training needs were identified and addressed • how action plans are developed, monitored and updated • how hazard identification and risk assessment occur • how incident investigation occurs.
Method of assessment	This Unit should be assessed together with other Units of Competence relevant to the function or work role.
Guidance information for	Access and equity considerations:

assessment	<ul style="list-style-type: none"> • all assessment should be applied with respect to relevant work-related access and equity issues • competence should reflect an ability to work in a culturally diverse environment. • assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on Aboriginal and/or Torres Strait Islander clients and communities.
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Range Statement

<p>The range statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Workplace health and safety legislation</i></p>	<p>Workplace health and safety legislation varies in different states and will include:</p> <ul style="list-style-type: none"> • National Work Health and Safety Model • current relevant State/Territory workplace health and safety legislation • relevant state/territory Manual Handling Code of Conduct.
<p><i>Standards</i></p>	<p>Standards include documents produced by national bodies, workplace health and safety regulators or industry bodies, that prescribe preventative action to avert occupational deaths, injuries and diseases.</p> <p>Standards are of an advisory nature only, except where a law adopts the standard and thus makes it mandatory.</p> <p>They may be called up as evidence in court or other enforcement action.</p>
<p><i>Codes of practice/compliance codes</i></p>	<p>Codes of practice/compliance codes are documents generally prepared to provide advice to employers and workers, of an acceptable way of achieving standards. They may:</p> <ul style="list-style-type: none"> • be incorporated into regulations • not relate to a standard • be called up as evidence in court or other

	enforcement action.
<i>Guidance material</i>	<p>Guidance material is an advisory technical document, providing detailed information for use by unions, employers, management, health and safety committee members and representatives, safety officers and others requiring guidance. It advises on 'what to do' and 'how to do it'. It has no legal standing.</p>
<i>Other sources of workplace health and safety information</i>	<p>Other sources of workplace health and safety information include persons, organisations and references where knowledge about workplace health and safety may be obtained. These sources may be:</p> <ul style="list-style-type: none"> • internal including: <ul style="list-style-type: none"> • hazard, incident and investigation reports • workplace inspections • incident investigations • minutes of meetings • job safety analyses (JSAs) and risk assessments • organisation data such as insurance records, enforcement notices and actions, workers compensation data, workplace health and safety performance data • reports and audits • material safety data sheets (MSDSs) and registers • employees handbooks • employees including questionnaire results • health and safety representatives • workplace health and safety committees • manufacturers' manuals and specifications • external, including: <ul style="list-style-type: none"> • employee assistance program providers and workplace counselling services • relevant state workplace health and safety Acts, regulations, codes and guidance materials • other relevant legislation • Safe Work Australia • State/territory regulatory bodies • databases, such as national and state injury data • workplace health and safety specialists and consultants

	<ul style="list-style-type: none"> • newspapers and journals, trade/industry publications • internet sites • industry networks and associations, including unions and employer groups • workplace health and safety professional bodies • specialist advisors • research information.
<i>Workplace health and safety information</i>	<p>Workplace health and safety information includes:</p> <ul style="list-style-type: none"> • collated information on hazard incidents and injuries • information on hazards, including MSDSs • investigation and audit reports • outcomes of hazard identifications and workplace inspections • requirements under workplace health and safety legislation, regulations, standards, codes of practice/compliance codes and guidelines • rights and responsibilities • risk assessments • risk controls • training records • workplace health and safety policies and procedures • work procedures.
<i>Risk controls</i>	<p>Risk controls include the devices and methods to, where practicable, eliminate the hazard or, where this is not practicable, minimise the risk associated with the hazard.</p>
<i>Legal requirements</i>	<p>Legal requirements for record keeping include that specified under workplace health and safety legislation and regulations for:</p> <ul style="list-style-type: none"> • serious incident and injury reporting • registered plant • hazardous substances and dangerous goods • environmental monitoring • health surveillance • privacy legislation.
<i>Workplace health and safety records</i>	<p>Workplace health and safety records may include:</p> <ul style="list-style-type: none"> • employees handbooks

	<ul style="list-style-type: none"> • environmental monitoring records • first aid records • hazard, incident and investigation reports • health surveillance records • job safety analyses (JSAs), safe work method statements and risk assessments • maintenance and testing reports • material safety data sheets (MSDSs) and registers • minutes of meetings • plant and equipment operation records, including those relevant to registered plant • training records • workplace inspection reports.
<i>Participative processes</i>	<p>Participative processes include processes that:</p> <ul style="list-style-type: none"> • inform employees and other stakeholders of workplace health and safety matters • seek their input • offer opportunity for stakeholders to participate in decisions that may impact on their health and safety <p>Participative processes may also be referred to as 'consultative processes', however 'participation' implies a higher level of involvement.</p>
<i>Organisation policies and procedures</i>	<p>Organisation policies and procedures include:</p> <ul style="list-style-type: none"> • policies and procedures underpinning the management of workplace health and safety, including: <ul style="list-style-type: none"> • hazard, incident and injury reporting • hazard identification, risk assessment and control • human resources policies and procedures such as harassment and grievance procedures, induction programs, team meetings, alcohol and drug policies • consultation and participation • incident investigation • quality system documentation.
<i>Consultation</i>	<p>Consultation includes processes for seeking information or the opinions from one or more people prior to decision making.</p> <p>Consultation should particularly include those who</p>

	<p>may affect the outcomes or be affected by the decisions made but may also include specialist sources.</p>
<p>Hazard</p>	<p>A hazard is a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these.</p> <p>Common workplace hazards (from Safe Work Australia <i>Work Health and Safety Risks - Code of Practice</i>) include:</p> <ul style="list-style-type: none"> • Manual tasks - overexertion or repetitive movement can cause muscular strain • Gravity - falling objects, falls, slips and trips of people can cause fractures, bruises, lacerations, dislocations, concussion, permanent injuries or death • Electricity - potential ignition source. Exposure to live electrical wires can cause shock, burns or death from electrocution • Machinery and equipment - being hit by moving vehicles, or being caught by moving parts of machinery can cause fractures, bruises, lacerations, dislocations, permanent injuries or death • Hazardous chemicals - chemicals (such as acids, hydrocarbons, heavy metals) and dusts (such as asbestos and silica) can cause respiratory illnesses, cancers or dermatitis • Extreme temperatures - heat can cause burns, heat stroke or fatigue. Cold can cause hypothermia or frost bite • Noise - exposure to loud noise can cause permanent hearing damage • Radiation - ultra violet, welding arc flashes, micro waves and lasers can cause burns, cancer or blindness • Biological - micro-organisms can cause hepatitis, legionnaires' disease, Q fever, HIV/AIDS or allergies • Psychosocial hazards - effects of work-related stress, bullying, violence and work-related fatigue. <p>Examples of hazards in an animal care environment may include:</p> <ul style="list-style-type: none"> • animal bites, envenomation, kicks, scratches or crush injuries

	<ul style="list-style-type: none"> • biological hazardous waste • bodily fluids • chemicals and medicines • sharps • zoonotic and exotic disease possibilities.
<i>Incident</i>	Incident includes any event that has caused or has the potential for injury, ill-health or damage.
<i>Hazard identification</i>	<p>Hazards identification is the process of identifying sources of harm, and may be required:</p> <ul style="list-style-type: none"> • before new forms of work and organisation of work are implemented • before changes are made to workplace, equipment, work processes or work arrangements • as part of planning major tasks or activities, such as equipment shutdowns • following an incident report • when new knowledge becomes available • at regular intervals during normal operations • prior to disposal of equipment, or materials.
<i>Risk</i>	Risk in relation to any hazard means the probability and consequences of injury, illness or damage resulting from exposure to a hazard.
<i>Risk assessments</i>	<p>Risk assessments involve analysing a hazard to:</p> <ul style="list-style-type: none"> • identify factors influencing the risk and the range of potential consequences: <ul style="list-style-type: none"> • effectiveness of existing controls • likelihood of each consequence considering exposure and hazard level • and combining these in some way to obtain a level of risk.
<i>Hierarchy of risk control</i>	<p>Hierarchy of risk control (from Safe Work Australia <i>Work Health and Safety Risks - Code of Practice</i>) includes:</p> <ul style="list-style-type: none"> • Level 1 controls <ul style="list-style-type: none"> • eliminate hazards • Level 2 controls <ul style="list-style-type: none"> • substitute the hazard with something safer • isolate the hazard from people • use engineering controls • Level 3 controls

	<ul style="list-style-type: none"> • use administrative controls • use personal protective equipment (PPE).
<i>Expert advisors</i>	<p>Expert advisors include persons either internal or external to the organisation including:</p> <ul style="list-style-type: none"> • audiologists • ergonomists • employee assistance and workplace counselling services • occupational health professionals • occupational hygienists • health and safety representatives • workplace health and safety committees • safety engineers • safety professionals • toxicologists <p>Expert advisors may also include other persons providing specific technical knowledge or expertise in areas related to workplace health and safety including:</p> <ul style="list-style-type: none"> • engineers (e.g. design, acoustic, mechanical, civil) • health professionals • injury management advisors • legal practitioners with experience in workplace health and safety • maintenance and trade persons • regulatory bodies • risk managers • security and emergency response personnel • workplace trainers and assessors.
<i>Workplace health and safety induction</i>	<p>Workplace health and safety induction includes the processes by which new employees are introduced to, and acquainted with their job and the new workplace, including familiarisation with:</p> <ul style="list-style-type: none"> • hazards and risks associated with the work, • risk control measures, • welfare facilities and • emergency response procedures.
<i>Stakeholders</i>	<p>Stakeholders are those people or organisations who may be affected by, or perceive themselves to be affected by an activity or decision including:</p> <ul style="list-style-type: none"> • officers • Persons Conducting a Business or Undertaking

	<p>(PCBUs)</p> <ul style="list-style-type: none"> • health and safety representatives • workplace health and safety committees • workers and contractors • the community.
<i>Workplace health and safety action plans</i>	<p>Workplace health and safety action plans include documented plans developed within the workplace to implement a systematic approach to workplace health and safety management and contain:</p> <ul style="list-style-type: none"> • actions that support an integrated strategy to address deficiencies, meet obligations or provide for improved outcomes • allocated responsibilities • timeframes.

Unit Sector(s)

Workplace health and safety

AHCAGB301 Keep production records for a primary production business

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to keep production business records such as paddock and livestock activity in accordance with workplace requirements auditing purposes.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Develop a system to collect and store production records	1.1 Determine physical records and inventories required for the organisation in consultation with the management team 1.2 Identify short-term methods for collecting information that are reliable, timely and efficient 1.3 Identify longer-term methods for sorting and storing information that allow effective analysis 1.4 Identify the most appropriate information collection and storage methods according to business requirements
2. Collect and maintain production records	2.1 Collect and maintain livestock records 2.2 Collect and maintain crop and pasture records 2.3 Collect and maintain records relating to farm vehicle and machinery use and maintenance 2.4 Collect and maintain property maintenance records 2.5 Collect and maintain records relating to stored produce 2.6 Collect and maintain relevant climatic records 2.7 Collect and maintain records relating to input purchases and use 2.8 Collect and maintain records relating to staff activities
3. Organise information for analysis	3.1 Transfer collected information into a manual or computerised recording system 3.2 Organise information into a format suitable for analysis, interpretation and dissemination 3.3 Use and maintain business equipment and technology in accordance with organisational and work health and safety requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCAGB301A Keep records for a primary production business.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB301 Keep production records for a primary production business

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- communicate with others to obtain information
- collect information relating to primary production
- organise and store information
- maintain inventory records
- complete a livestock reconciliation
- follow enterprise work health and safety policies.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the organisation's policies and procedures applying to production records
- relevant legislation and codes, relating to the operation of a business and to the tasks undertaken
- recording processes to meet QA requirements
- the organisation's software and technology used to record and analyse production information.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB401 Plan and implement property improvement

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and implement property improvement.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work. They undertake a range of routine and non-routine activities and work in known and changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine the	1.1 Discuss possible improvements for the planning period with the

Element	Performance criteria
improvement to be carried out	relevant people 1.2 Prioritise improvements to be implemented 1.3 Make plans to construct and maintain the improvements in line with medium-term property management and strategic plans 1.4 Make allocations from the available budget for the planned improvements
2. Arrange the design and layout of the property improvement	2.1 Investigate alternative plans and layouts based on how appropriate they are for the management plan and environmental and work health and safety considerations 2.2 Determine the most appropriate location for the improvement 2.3 Determine the most appropriate design for the improvement and calculate dimensions 2.4 Draw up plans for the improvement for the agreed improvement
3. Order materials for property improvement	3.1 Calculate materials required for the construction of the improvement from the drawn plans and discuss with relevant colleagues 3.2 Obtain quotes from suppliers for the materials and select suitable suppliers 3.3 Place orders with the chosen suppliers for the quantities, sizes and types of materials required
4. Prepare site for installation	4.1 Inspect site, and note key features for the planned property improvement 4.2 Inform all relevant people, including neighbours, of the proposed activities 4.3 Measure and peg selected site according to the prepared plans 4.4 Prepare the site to be ready for the improvement and take precautions to ensure that adverse environmental impacts are eliminated or minimised 4.5 Identify and assess work health and safety hazards and take responsible action throughout the site preparation activities
5. Supervise implementation of property improvement	5.1 Obtain all materials required for each work period and ensure they are on site ready for implementation 5.2 Implement property improvement according to the drawn plans and the prepared schedules 5.3 Undertake all work so that adverse environmental impacts are minimised or eliminated 5.4 Identify and assess work health and safety hazards are and take responsible action throughout the work 5.5 Maintain communication between those working at the site 5.6 Check the work regularly to ensure consistency with the drawn

Element	Performance criteria
	plans 5.7 Dispose of any waste material responsibly 5.8 Take corrective action where required
6. Carry out and monitor planned maintenance	6.1 Undertake and monitor planned maintenance to the improvement 6.2 Take precautions throughout the maintenance works to ensure adverse environmental impacts are minimised or eliminated 6.3 Identify and assess work health and safety hazards and take responsible action throughout the maintenance works

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB401A Implement and monitor a property improvement plan.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB401 Plan and implement property improvement

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan and implement the construction of physical resources
- organise and schedule the maintenance of physical resources
- analyse and assess the costs and benefits of plans and layouts in the light of all considerations including: work health and safety, financial, environmental and animal welfare
- prepare written plans and procedures for implementation by others
- prepare drawn plans or sketches
- estimate and order the materials required
- follow enterprise work health and safety policies
- follow enterprise sustainability practices.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- function and requirements of infrastructure requirements
- sustainable land and water use principles and practices applicable in the region
- environmental controls and codes of practice applicable to the business and to the improvement works
- whole property plan
- legislation, regulations and codes of practice relating to soil and water degradation issues, animal health and welfare, chemical use, building construction and workplace health and safety.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB402 Analyse and interpret production data

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to analyse and interpret animal, crop and horticultural production data.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes.

This unit applies to individuals who take responsibility for their own work. They undertake a range of routine and non-routine activities and work in known and changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Collect and organise production data	1.1 Collect, organise and interpret information in a format suitable for analysis

Element	Performance criteria
	1.2 Determine accuracy and relevance of information held by the production unit 1.3 Ensure methods of collecting data are reliable and make efficient use of resources 1.4 Use business equipment to access, organise and monitor data 1.5 Update, modify, maintain and store information
2. Analyse and interpret data	2.1 Define objectives of analysis clearly 2.2 Ensure methods of data analysis are reliable and consistent 2.3 Ensure assumptions used in analyses are clear, justified and consistent with enterprise objectives 2.4 Ensure conclusions are supported by evidence and contribute to the achievement of business objectives
3. Present data	3.1 Prepare and report data in an appropriate format, style and structure using suitable business technology 3.2 Ensure structure and format of reports are clear and conform to enterprise requirements 3.3 Obtain feedback and comments on suitability and sufficiency of findings

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB402A Analyse and interpret production data.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB402 Analyse and interpret production data

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect and organise production data
- use business equipment
- assess data accuracy
- analyse and interpret data
- present data with conclusions.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant legislation, industry and enterprise codes of practice and quality assurance procedures that impact on production
- enterprise record keeping and data storage practices
- enterprise policies and procedures relating to collection, analysis and maintenance of production data
- methods to collect and analyse production data
- data management systems and methods
- principles of report writing and data presentation.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB501 Develop climate risk management strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop climate risk management strategies.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Survey climate and	1.1 Obtain and interpret historical climate data from a range of

Element	Performance criteria
enterprise data	sources 1.2 Identify weather and climate risk factors 1.3 Collect information on normal and significant climate events and their impact on natural and rural systems 1.4 Detail current and historical property and enterprise production 1.5 Review short and long term enterprise goals to ensure they fit within climatic constraints 1.6 Source, present and update climate and enterprise data according to enterprise requirements
2. Climate risks and opportunities are identified and analysed	2.1 Analyse forecasted changes of seasonal climate 2.2 Identify climate risks and opportunities 2.3 Determine impact on production of different weather and climate risk factors according to enterprise requirements 2.4 Identify and develop qualitative and quantitative risk and opportunity factors 2.5 Evaluate importance of climate variability and significant climate events 2.6 Outline tactics to address a range of different climate variability risks and opportunities 2.7 Identify contingency options for enterprises and the business
3. Prepare climate risk management strategies	3.1 Analyse climate variability and seasonal climate forecasts 3.2 Address insurance and other options in business strategies 3.3 Address major climate risk factors in business strategies 3.4 Prepare financial outcomes for all strategies according to enterprise guidelines 3.5 Predict impacts on the environment, property value and equity for the preferred strategies 3.6 Review preferred production, enterprise or alternative strategies and select options according to enterprise requirements 3.7 Present a planned strategy to cope with variable climate and climate risk management

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB501A Develop climate risk management strategies.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB501 Develop climate risk management strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research, analyse and interpret climate and enterprise data
- prepare risk management strategies
- integrate climate risk with opportunities and management strategies at a business management level
- implement enterprise sustainability policies.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- current forecasting techniques and phenomena, such as El Nino, ENSO, Southern Oscillation Index (SOI) and Pacific and Indian Ocean SST patterns
- impact of weather and climate on business activities
- causes of general patterns of weather and climate over Australia
- climate variability and climate change
- direct and indirect impacts of climate variability on land management and sustainability
- property and enterprise management decisions affected by the variable climate
- recognition of climate risks and opportunities
- seasonal climate forecasting systems and related indicators
- natural disaster planning
- climate and weather issues pertaining to sustainable agriculture
- potential impacts of greenhouse warming on land and natural resource management
- strategic options and planning in response to climate variability for a range of seasons (normal, drier or wetter than normal), and other risks and opportunities

- calculating financial returns for different strategic options
- computer applications and Internet to access, record and analyse data
- principles of decision-making based on the variable climate and seasonal climate forecasts.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB502 Plan and manage infrastructure requirements

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and manage infrastructure requirements.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine infrastructure	1.1 Access information regarding the characteristics of the products

Element	Performance criteria
requirements	<p>and their respective market requirements</p> <p>1.2 Confirm characteristics of the land under production and the production processes to be used from colleagues and other planning processes</p> <p>1.3 Identify and access data from organisational records for input to infrastructure planning processes</p> <p>1.4 Collect and use information regarding other organisational planning processes and potential for improvements or innovations collected to inform the infrastructure planning process</p> <p>1.5 Identify and compare the infrastructure required to efficiently achieve the targeted production requirements with those existing and available in the organisation</p> <p>1.6 Identify work health and safety hazards, assess risks and incorporate suitable controls into the planning process</p> <p>1.7 Plan and budget for replacements, purchases and sales of plant and vehicles</p> <p>1.8 Use details regarding infrastructure requirements as input to other organisational planning processes</p>
2. Obtain, prepare or build infrastructure	<p>2.1 Identify solutions to bridging the gaps between required and existing infrastructure</p> <p>2.2 Determine preferred solution to filling gaps in required infrastructure from a cost benefit analysis</p> <p>2.3 Undertake negotiations to obtain infrastructure or componentry at the best rate for the organisation</p> <p>2.4 Organise preparation work required for existing infrastructure and undertaken as necessary</p> <p>2.5 Plan and commission works required</p> <p>2.6 Ensure all alterations to infrastructure or new developments give due consideration to environmental and waste management requirements</p>
3. Manage infrastructure	<p>3.1 Determine infrastructure maintenance programs including scheduling and responsibilities</p> <p>3.2 Undertake replacements, purchases and sales of infrastructure according to plans made</p> <p>3.3 Ensure any reallocations of land required are undertaken with the planning and consultation required by the organisation and within all relevant guidelines and regulations</p> <p>3.4 Manage situations that require unplanned maintenance within organisation guidelines and policy</p> <p>3.5 Make checks to ensure that program specifications are adhered to and amendments are made where necessary</p>

Element	Performance criteria
	3.6 Make checks to ensure that all work health and safety requirements are adhered to including the appropriate use of personal protective equipment 3.7 Make checks to ensure that potential detrimental environmental impacts are minimised or eliminated
4. Record and manage information	4.1 Analyse data, observations and documentation recorded during the production cycle against the plan 4.2 Prepare recommendations for future plans based on the analysis of the data 4.3 Prepare a report that documents the plan's implementation 4.4 Create, maintain and keep records and documentation as described in the business plan 4.5 Complete records and documentation clearly and accurately throughout production in the organisation 4.6 Ensure relevant records are available, accessible, meaningful and useful

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB502A Plan and manage infrastructure requirements.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB502 Plan and manage infrastructure requirements

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify infrastructure requirements for the enterprise
- source, construct and modify infrastructure to meet enterprise requirements
- develop an infrastructure maintenance program including scheduling and responsibilities
- establish a recording system for infrastructure purchase, construction and maintenance
- interpret, analyse and extract information from a range of sources
- identify, build and use network and support groups
- recognise potential opportunities to use or install more environmentally efficient systems or equipment
- implement enterprise work health and safety policies
- implement enterprise sustainability practices.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- sustainable land use principles and practices
- property planning, financial management and enterprise budgeting systems and procedures
- environmental controls and codes of practice available to the organisation
- sound management practices and processes to minimise noise odours and debris from production processes
- sustainable land use principles and practices applicable in the region
- relevant legislation and regulations relating to infrastructure management.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB503 Plan and monitor production processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and monitor production processes.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine production	1.1 Obtain production information for consideration

Element	Performance criteria
process requirements	1.2 Confirm characteristics of the resources under production 1.3 Obtain recent and historical data from organisational records for input to production planning 1.4 Identify potential for improvements or innovations to inform production planning 1.5 Identify production processes required to achieve the targeted production and compare with those that currently exist 1.6 Use production planning information as input to other organisational planning processes 1.7 Establish appropriate biosecurity and Quality Assurance requirements
2. Determine monitoring requirements and systems	2.1 Establish targets for each production unit from the organisational management and strategic plans 2.2 Schedule production taking varying organisational factors into consideration 2.3 Establish and include environmental sustainability controls in the production plan 2.4 Establish monitoring points and performance indicators using target, environmental management and scheduling information 2.5 Develop and use risk management strategies when necessary
3. Monitor and evaluate the effectiveness of production processes	3.1 Ensure that performance indicators, targets and specifications are met and amendments to the process are made where necessary 3.2 Evaluate the effectiveness of the production processes at key points and make adjustments as necessary 3.3 Identify monitor and assess environmental impacts and workplace health and safety hazards throughout the production cycle 3.4 Modify the production process by shifting priorities and results when necessary 3.5 Analyse data, observations and documentation from the production process against the plan
4. Record and manage information	4.1 Prepare recommendations for future plans based on the analysis of production data 4.2 Prepare a report that documents the plan's implementation 4.2 Create, maintain and keep records and documentation as described in the production plan, the work health and safety requirements, and machinery and equipment management programs 4.4 Ensure that required information is available, accessible, meaningful and useful

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB503A Plan and monitor production processes.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB503 Plan and monitor production processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret gathered information on production processes
- interpret, analyse and extract information from a range sources such as professional literature, contracts, discussions and workshops
- identify, build and use network and support groups
- observe, identify and react appropriately to environmental implications and work health and safety hazards
- assess and adopt profitable innovations
- set yield targets and objectives and estimate timelines
- contribute to preparing enterprise budgets and financials
- implement enterprise work health and safety policies
- implement enterprise biosecurity policies
- implement enterprise sustainability policies.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental controls and codes of practice available to the organisation
- sustainable management practices
- sustainable land use principles and practices applicable in the region
- planning processes
- biosecurity and Quality Assurance requirements
- relevant legislation and regulations relating to production.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB504 Plan production for the whole business

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan production for the whole business.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Review and confirm the organisations	1.1 Compare the organisation's business goals and vision against

Element	Performance criteria
business goals and vision	actual business activities 1.2 Compare the values and community expectations of the organisation against actual business activities 1.3 Review the organisation's operating environment to identify potential opportunities and threats 1.4 Analyse the strengths and weaknesses of the organisation to identify potential areas for development 1.5 Access and discuss information on available innovations for use in the organisation with colleagues 1.6 Document the organisation's goals and vision
2. Prepare human resource development plans	2.1 Identify personal values, attributes and skills of the management team 2.2 Identify specific areas of expertise in the business 2.3 Assign specific areas of responsibility based on identified skills and attributes 2.4 Discuss and establish succession planning with management team 2.5 Identify skill development and training requirements 2.6 Obtain commitment to ongoing skill development from the management team 2.7 Establish communication strategies and develop a collaborative environment
3. Prepare a plan to manage land use	3.1 Survey land to identify natural resources, soil characteristics, water resources, and cultural heritage values of the property 3.2 Determine land use capacities from land condition tests and history of yields 3.3 Determine land use for individual paddocks based on land use capacities, products being produced, and the organisations goals and vision 3.4 Develop a plan to improve the management and use of land on the property, based on property resources and the organisation's goals and vision, and incorporate into the production plan 3.5 Develop organisational policy in relation to the environmental management of the land based on land use, prevalent pests and diseases, and the organisation's goals and vision
4. Plan production processes	4.1 Obtain production information for product under consideration 4.2 Confirm characteristics of the land under production and the quality of existing infrastructure 4.3 Obtain recent and historical data from organisational records for input to production planning 4.4 Collect and use information about organisational planning processes and potential for improvements or innovations to

Element	Performance criteria
	inform production planning 4.5 Identify production processes required to achieve the targeted production and compare with those that currently exist 4.6 Use production planning information as input to other organisational planning processes
5. Develop financial goals and risk management strategies	5.1 Identify the key financial performance indicators of each enterprise in the business from analysis of cash flow, profitability and net worth 5.2 Assess the financial performance of each enterprise in the business from analysis of key financial performance indicators and their impacts on business performance 5.3 Identify financial goals for each enterprise in the business from financial performance assessment and the organisation's goals and vision 5.4 Identify areas of risk in the organisation from analysis of the operating environment, production strategies, work health and safety records and staff skills 5.5 Identify and implement risk management strategies
6. Prepare and communicate the organisations vision, goals and plan	6.1 Integrate the organisation's goals and vision, human resource development, land-use, production and financial plans to reflect the decisions taken in each area 6.2 Articulate the organisation's goals, vision and plans to relevant staff 6.3 Establish a program to regularly review the organisations vision, goals and plans

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB504A Plan production for the whole land/farm based business.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB504 Plan production for the whole business

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- review strategic plans and production goals
- prepare enterprise budgets and calculate financial returns of the business
- develop financial management and marketing plans for the business
- review the natural resource base of the enterprise and incorporating principles of sustainability
- incorporate into production planning the personal aims and priorities of management and, the availability, productivity and training needs of labour
- assess the skills and expertise of self and colleagues
- facilitate group decision making within the business
- plan production processes
- assess environmental impacts and implement impact reduction techniques
- implement enterprise sustainability policies.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- holistic business planning and benchmarking
- marketplace in which the organisation operates
- land use planning including sustainable land use principles and practices
- soil nutrient cycling potential and limitations
- chemical and biological methods for pest control
- property planning, financial management and enterprise budgeting systems and procedures

- relevant State or Territory legislation, regulations and codes of practice which impact on rural production businesses
- monitoring strategies for financial, production, land use, and human resource development plans
- methods for assessing skills and expertise
- reasons for and methods of succession planning
- value and methods of risk assessment.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB505 Develop a whole farm plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a whole farm plan.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine directions	1.1 Establish long-term directions and purposes of the business through identification and analysis of the values, expectations and

Element	Performance criteria
for the business	personal goals of the people involved 1.2 Identify business and personal strengths, weaknesses, opportunities and threats (SWOT) 1.3 Develop strategies to address the SWOT consistent with the business vision
2. Audit the natural resources and infrastructure of the property	2.1 Identify and record physical characteristics of the soil resource 2.2 Produce a soil map of property and record land classes using classification terminology 2.3 Determine land capability and identify land management options for each land class 2.4 Show natural property features and infrastructure on property map 2.5 Identify areas at risk of soil degradation 2.6 Classify native vegetation and assess condition 2.7 Identify endangered species as appropriate 2.8 Identify other natural resource issues as appropriate 2.9 Identify infrastructure to assist with planning and maintenance
3. Monitor legal requirements impacting on the management of the property	3.1 Develop knowledge of relevant Acts and regulations impacting on the property 3.2 Address legal requirements through management plans
4. Develop management strategies to address natural resource management issues	4.1 Develop, cost and prioritise property improvement plans to assist natural resource management 4.2 Develop plans to repair land degradation 4.3 Prepare water supply and water management, vegetation and revegetation management, and wildlife management strategies as appropriate to the property 4.4 Develop strategies for weed and pest management 4.5 Develop plans to address fire risk and fire management as appropriate
5. Review whole farm plan	5.1 Review and revise plans to meet changing circumstances

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB505A Develop a whole farm plan.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB505 Develop a whole farm plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- audit the natural resources of the property
- monitor legal requirements impacting on the management of the property
- develop management strategies to address natural resource management issues
- integrate business objectives and production plans with sustainable land management in a whole farm plan.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- SWOT analysis
- sustainable land management practices
- property planning processes and approaches
- land capability
- water, vegetation, soil, fire and wildlife management strategies
- legal requirements impacting on whole farm planning
- risk management.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB506 Manage application technology

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency specifies the outcomes required to provide information or manage application technology in crops or pastures. The technology applies to the application of chemicals such as herbicides, fungicides, insecticide and fertilisers as well as biological and organic agents.

The unit involves the application of a broad knowledge base to identify and apply solutions to a range of problems. This includes plant morphology and physiology, plant protection, nutrition requirements, environmental impacts, the use of information technology and occupational health and safety hazards.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit of competency applies to work in a range of agricultural or support enterprises, such as agronomists and rural merchants. Work will be undertaken without supervision. Responsibility for and organisation of the work of others involved in the program may be required.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Analyse application requirements	1.1 Determine goals for application of agents following a review of enterprise production plans and in consultation with land manager 1.2 Access and review records of previous nutrition, pest, weed and disease management including the application of any agents 1.3 Access and review relevant climate, environmental and geographic data from available information systems and sources 1.4 Access and review yield monitoring data including yield variability 1.5 Access and review relevant soil, plant and water information from tests and records
2. Develop an application plan	2.1 Identify performance targets and indicators in the plan 2.2 Select appropriate agent/s, including adjuvants, method of application and equipment based on site analysis, recommendations, production requirements, environmental conditions and manufacturer's specifications 2.3 Select spray nozzles to achieve the optimum droplet size with minimal variation and deliver the appropriate liquid flow rate for the selected agent in the desired spray distribution pattern 2.4 Determine and monitor measures to control factors influencing the level of spray drift 2.5 Determine procedures to ensure compliance with the range of appropriate federal, state and local government legislation and regulations 2.6 Identify work health and safety hazards, assess risks and implement appropriate controls 2.7 Determine environmental impacts of application and implement appropriate clean up strategies to the area 2.8 Determine scheduling for applications taking the range of seasonal, geographic and resourcing factors into consideration 2.9 Determine the type, format, frequency and detail of record keeping required by legislation and undertaken by manager(s) and operators

Element	Performance criteria
3. Monitor and evaluate the effectiveness of the application plan	3.1 Evaluate the effectiveness of the application at key points and make adjustments as necessary 3.2 Monitor and assess environmental impacts and work health and safety hazards relating to application strategies throughout the implementation process 3.3 Make modifications to the plan as and when necessary for environmental, work health and safety, resourcing or effectiveness reasons 3.4 Analyse data, observations and documentation from the implementation of the application plan against the plan according to enterprise guidelines 3.5 Prepare recommendations for future strategies based on the analysis of the data 3.6 Record details of the implementation including information on any difficulties or issues faced, technical details, environmental and work health and safety impacts, recommendation for future action, results, costs and any available data analysis

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VU21628 Manage application technology

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB506 Manage application technology

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret, analyse and extract information from a range of sources
- establish processes, strategies, procedures and controls for the application of chemical and biological agents
- prepare written plans and procedures for implementation by others
- explain and deliver instructions about the plans and scheduling of operations
- identify and react appropriately to environmental implications and work health and safety hazards
- identify and assess weeds, pests, diseases and nutritional and other deficiencies
- formulate efficient, cost effective control programs
- read and interpret manufacturer's instructions and agent labels
- record recommendations and applications.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- characteristics of pest, weed and disease species including their life cycles and reproduction capability
- principles of integrated pest and weed management
- range and classes of fertilisers, herbicides, insecticides and fungicides available and their basic chemistry
- growth stages of weeds and plant morphology
- the effects on crops of weeds, pests, diseases and/or lack of soil fertility
- mode of action of chemical or biological control agents and long term effects of these agents with respect to plant back periods and resistance

- range and effect of different nozzles, pressures, spray patterns, droplet sizes and basic physics of droplets and fluids
- work health and safety hazards and controls and environmental impacts
- best management practices and processes to minimise the impact of agents
- federal, state and local government legislation and regulations.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB507 Select and use agricultural technology

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the selection and application of modern agricultural technology in production systems. Applications include the recording and reporting of farm activities, mapping, farm and production planning, data collection and analysis and variable rate technology. This unit assists land managers to make informed decisions specific to production systems and applications.

Applications in agricultural science range from spatial information tools to the precision application of production inputs and growth models for the improvement of production.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit is applicable to persons who have a role in managing or operating a land based production business or providing expert advice such as consultants, industry specialists and extension officers.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Evaluate the need for agricultural technology	1.1 Identify and evaluate organisational tasks and processes that could be supported by technology applications 1.2 Assess opportunities and limitations for operational improvements that may result from adopting specific technology applications 1.3 Evaluate equipment, tool and resource requirements and select the most appropriate options 1.4 Evaluate the cost-benefit of using technology 1.5 Seek independent technical advice and sources of information as required 1.6 Develop a plan to incorporate the use of technology to improve operational efficiency, productivity and sustainability
2. Implement technology to manage production	2.1 Record, analyse and manage production data using technology 2.2 Develop treatment strategies or input requirements using technology 2.3 Collect, store and analyse data across the land based business using technology 2.4 Research information resources, report and communicate production management using technology 2.5 Integrate the use of technology to improve operational efficiency, production, profitability and sustainability
3. Evaluate the use of technology	3.1 Develop and review strategies to ensure the use of technology is cost effective and consistent with operational goals 3.2 Assess the need for additional training and support 3.3 Develop strategies to address barriers to the effective use of technology when necessary 3.4 Evaluate the impact of technology use on production levels, input costs and the cash flow budget 3.5 Develop strategies for monitoring, evaluating and incorporating future developments in technology

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VU21629 Select and use agricultural technology

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB507 Select and use agricultural technology

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify a range of technologies and how to apply them in an agricultural system
- obtain and process data and information using technology
- assess and review production information for application into farm management
- identify appropriate training and support for staff
- identify and manage issues that may arise in the use of the technology
- complete a cost and benefits analysis
- analytical skills to evaluate opportunities.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- basic principles of technology used for agricultural applications
- basic principles of cost-benefit analysis
- equipment, tool and resource requirements
- context in which particular organisations operate and how this may impact on the selection and use of technology
- potential barriers to learning, and strategies to address these
- range of technology options available to support organisational activities
- strategies that can be used to evaluate technology use
- training and technical support options available to the organisation to develop skills in the use of technology
- sources of information related to agricultural technology
- trends and developments in technology relevant to agriculture.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB508 Improve agricultural sustainability using renewable energy and recycle systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the development of planning strategies to address sustainability issues, using renewable energy sources and opportunities to recycle products, improve the efficiency of the business and reduce off-site impacts from the production system.

It will involve working in a safe manner and applying sustainable renewable energy systems to rural, regional and local conditions. All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit is applicable to a person who has role in the management of the following land based business:

- Agricultural related industries
- Production Horticulture
- Agro-Forestry

This unit will require the consultation with external experts such as alternative energy consultants and suppliers of alternative energy equipment, planning authorities, State and Federal Government Departments who administer subsidies and provide advice.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify opportunities to reduce greenhouse gas emissions and use recycling	<p>1.1 Identify areas of each enterprise to improve efficient use of energy and cost savings to work practices, using renewable energy resources, recycling products and other ways to reduce greenhouse gas emissions.</p> <p>1.2 Identify available government subsidies for the implementation of strategies using renewable energy or recycling and potential cost savings to the business in the longer term.</p> <p>1.3 Identify the specified standards of quality, licensing, regulatory requirements, government legislation and safety issues for the introduction of any renewable energy resources and recycled products</p> <p>1.4 Identify potential income earnings capabilities to business by on selling energy excesses or recycled products.</p> <p>1.5 Measure improvement outcomes from the introduction of renewable energy sources and recycling products in relation to achieving greater sustainability.</p> <p>1.6 Identify and conduct risk assessment for work health and safety hazards</p>
2. Develop strategies to reduce greenhouse gas emissions and use recycling	<p>2.1 Develop strategies to apply principles of sustainability to address greenhouse gas emissions from using renewable energy resources, recycled products and improved work practices.</p> <p>2.2 Estimate plant, material, labour and other associated costs in consultation with appropriate person(s) or organization(s).</p> <p>2.3 Develop a budget for estimated plant, material, labour and other associated costs</p> <p>2.4 Develop effective work plan strategies for the introduction of renewable energy resources and recycled products.</p> <p>2.5 Investigate sources and availability of materials and human resources needed to complete work plan</p> <p>2.6 Develop risk management strategies including contingencies to maintain supply to contract on time and incorporate into the plan.</p> <p>2.7 Develop work health and safety risk control measures and establish procedures</p>

Element	Performance criteria
3. Implement strategies to reduce greenhouse gas emissions and use recycling	3.1 Implement and monitor the plan for renewable energy and recycling products to ensure on time supply of plant and materials. 3.2 Monitor the progress of strategies to reduce greenhouse gas emissions and recycling against schedule, quality requirements and budget. 3.3 Identify unplanned events and deal with safely and effectively, consistent with regulatory requirements and enterprise policy. 3.4 Review plan against required inputs and make adjustments to rectify any anomalies to meet and supply contractual arrangements on time. 3.5 Monitor work health and safety risk control measures and procedures and implement changes 3.6 Evaluate the improvement outcomes and document appropriate corrective action taken with a view to improvement.

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VBP477 Improve agricultural sustainability using renewable energy and recycle system/s

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB508 Improve agricultural sustainability using renewable energy and recycle systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify key parts of the enterprise operation that may be converted to renewable energy sources, reducing greenhouse emissions and recycling opportunities using key principles of sustainability
- establish a budget, organising materials and staff
- develop a plan to use renewable energy and recycling systems in agricultural systems including environmental risk management strategies
- develop workflow plan strategies and monitor progress of the plan during the implementation stages including work health and safety issues
- establish and evaluate improvement outcomes
- identify sustainability issues and implement associated systems for the use of renewable energy and recycling systems
- plan and budget cost efficient savings by implementing renewable energy of project
- monitor the plan and address contingency plans including risk management strategies
- recognise work health and safety hazards and implement control measures on the work site
- recognise environmental safety issues associated with the use of renewable energy
- organise materials, plant and human resources for implementation for the adoption of renewable energy or recycling opportunities
- measure and evaluate improvement outcomes.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- key principles of sustainability associated with using of renewable energy and recycling systems
- government legislation, regulatory requirements, licensing and subsidies
- environmental and work health and safety risk management strategies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB509 Select and implement a Geographic Information System (GIS) for sustainable agricultural systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers identification and application of current technology, selecting and inputting appropriate data, processing and evaluating information and data produced. This unit assists land managers to make informed decisions in a number of production systems and applications, integrating into an overall holistic planning tool.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit is applicable to persons who have a role in managing a land based production business. This unit is likely to require consultation with external experts, such as extension officers from State Agricultural Departments and agronomists.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Select a GIS to incorporate into the land based business	1.1 Identify appropriate GIS management software appropriate to a land based business requirement 1.2 Identify the purpose and business requirements of the GIS for developing a sustainable land management system 1.3 Collect enterprise and land use management data requirements from all sources of information and enter into the software program 1.4 Identify and assess opportunities and limitations for operational improvements that may result from adopting GIS 1.5 Identify potential cost savings benefits as a result of using GIS and adjust enterprise production budgets 1.6 Develop a plan to incorporate the use of a GIS into the land based business to improve operational efficiency, profitability and sustainability
2. Implement GIS into the land based business	2.1 Identify appropriate training requirements for personnel to optimise the efficient use of machinery and technology 2.2 Select required machinery and technology to incorporate into production operation 2.3 Complete work operations to minimise environmental impacts by improving soil profile and productivity 2.4 Identify and implement corrective action as a result of precise measurement data provided by satellite imagery
3. Review production data using GIS	3.1 Review enterprise operations regularly to identify opportunities for improvements in sustainable production systems using GIS 3.2 Monitor and assess impact of natural conditions on enterprise to maximise sustainability of land-based business 3.3 Review production data to identify increases in productivity and reduced input costs 3.4 Review monitoring procedures and recorded operating costs against production cash flow budget

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VBP153 Select and implement a Geographic Information System (GIS) for sustainable agricultural systems.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB509 Select and implement a Geographic Information System (GIS) for sustainable agricultural systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify a range of software systems and how to apply them into a production system
- interpret production and land management maps to apply into everyday farming management
- identify erosion, soil management techniques, salinity, farming systems, bio-diversity and weeds by using GIS
- apply solutions to erosion, soil management techniques, salinity, farming systems, bio-diversity and weeds using GIS
- manage and co-ordinate work teams using GIS and associated technology
- complete a cost and benefits analysis
- use a computer, including computer aided drafting
- analysis digital map images
- communicate with staff and other parties on instruction and training in the use of GIS
- use self-diagnosis manuals to identify technical systems faults.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- financial management and strategic planning benefits from the implementation of a GIS
- legal concepts on the gathering of data to be used in GIS applications
- GIS applications and associated technology
- mapping principles of GIS
- computer concepts

- spatial calculations using GIS.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB510 Implement the introduction of biotechnology into the production system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the process of evaluating the implications of introducing bio-technology and genetically modified organisms into the current production system. Strategies are developed to implement and monitor the integration of bio-technology products in a sustainable system by preparing strategies for the implementation, monitoring and evaluating the integration bio-technology products into the production plan.

This technology will require producers to identify potential risks and benefits, responsibly manage all aspects of risks to the neighbours, local community, and to the environment, relevant to the existing and new production system.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit is applicable to persons who have a role in managing a land based production business. This unit is likely to require consultation with external experts, such as extension officers from State Agricultural Departments, Agri-business representatives, agronomists and regulators including insurance agencies.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Evaluate benefits and applications of introducing bio-technology in the production system	1.1 Identify information on bio-technology relevant to the enterprise by researching and analysing potential benefits and ramifications to the production system, the environment and others in the district 1.2 Explain how bio-technology can be integrated into the current production system, to improve business profitability and sustainability 1.3 Compare current and historical production data for the production system with potential for increased production 1.4 Investigate potential risks involved in the introduction of bio-technology to the current production system 1.5 Collate information in a clear and concise manner to determine informed decisions 1.6 Evaluate the implications for the integration of bio-technology into current production plan
2. Develop an implementation plan for the introduction of bio-technology into production system	2.1 Select the application of bio-technology suitable to local environment, climate, seasonal conditions, business goals and marketing objectives 2.2 Identify required changes to current production systems and develop suitable strategies for the application of a farm production management plan 2.3 Develop risk management strategies including quality assurance (QA) system principles consistent with production plan requirements and marketing boards 2.4 Identify all relevant legislation, regulatory and product supplier requirements and implement according to the production plan 2.5 Identify key roles and responsibilities of personnel including training requirements 2.6 Develop an implementation production management plan including risk management strategies and QA systems
3. Implement and manage bio-technology into the production system	3.1 Implement production, infrastructure and land management plans 3.2 Implement the risk management strategies for the production plan and record information in QA system 3.3 Manage scheduling of production processes taking organization factors and paddock operation into consideration 3.4 Manage integration of environmental values into the production

Element	Performance criteria
	process 3.5 Monitor risk management strategies plan and identify problems and issues by conducting a risk management audit on property
4. Evaluate management strategies	4.1 Evaluate potential results of threats in terms of natural resources, business assets, infrastructure, environmental and community 4.2 Identify preventative and reactive action and develop further contingency plans to minimise threats and maximise opportunities 4.3 Review risk management strategies plan aimed at ensuring business stability, sustainability and profitability, while protecting and preserving natural resources and business assets 4.4 Evaluate production plan for the introduction of bio-technology into production system

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VBP154 Implement the introduction of biotechnology into the production system.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB510 Implement the introduction of biotechnology into the production system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research implications of introducing bio-technology for business
- identify applications for business and production systems
- develop and implement plans for production systems and risk management strategies
- recognise potential opportunities of introducing bio-technology (business and production)
- assess and adopt profitable innovations from the use of bio-technology products
- interpret, analyse and extract information from a range of sources such as professional literature, legal documents, discussions and workshops
- undertake cost benefit analysis in relation to the introduction of bio-technology
- communicate with industry contacts, colleagues and family regarding the land/farm based business
- design risk management strategies including installing a Total Quality Management System (TQMS)
- conduct a risk management audit before and after the introduction of bio-technology products
- complete and maintain appropriate quality assurance documentation for a TQMS.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- benefits and risks of introducing biotechnology into a production system
- principles of sustainability
- relevant State/Territory legislation, regulations and codes of practice with regards to work health and safety, use and control of hazardous substances and biotechnology in production systems

- financial cost analysis tools and techniques
- methods of risk assessment audits for the production system
- implementing, monitoring and maintenance of a Total Quality Management System (TQMS)
- stewardship to fellow farmers and community when using bio-technology in a production system.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB511 Develop and manage a plan for sustainable production reflecting sustainable production principles

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the process of developing a farm plan for a rural enterprise to reflect organic, biodynamic and biological farming principles. It requires the ability to determine the philosophy of the farm business. An audit of the farm and the resources will be undertaken to assess the current status of the property. A management plan is developed to ensure sustainability of the farm business and the natural areas on the property. The plan is to convert the property and the management system to reflect the philosophy and the orderly transition to the new short term and long-term goals. It is also to manage the production system including crops, pasture and livestock within the organic, biodynamic and biological farming system. Records will be kept to maintain the integrity and quality of the product and meet legal requirements for accreditation.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit is applicable to a person who has a role in managing a farm. This unit is likely to require consultation with certification bodies, auditors and producers with similar philosophies.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop goals and objectives for an organic, biodynamic or biological enterprise	1.1 Establish long-term direction and purpose of the business by identifying and analysing the values, expectations and personal goals of the people involved 1.2 Identify business and personal strengths, weaknesses, opportunities and threats and strategies to address them 1.3 Investigate sources of information and support for conversion and plan the property conversion over a period of time including time lines and conversion costs
2. Audit the existing and natural resources on the property	2.1 Draw a property map to include land classes using classification terminology, fences and water systems, natural property features and infrastructure 2.2 Conduct a risk assessment of previous land use and an inventory of chemicals applied or evidence of application on the site 2.3 Identify areas at risk of soil degradation and develop strategies to protect the area 2.4 Develop and implement strategies to improve the health and the regeneration of remnant vegetation to support a diversity of living systems 2.5 Assess potential problem pests and weeds and use strategies to implement an eradication program, within the guidelines of the certification body
3. Develop and implement grazing and cropping strategies to improve biodiversity, recycling and sustainability in an organic, biodynamic or biological farm	3.1 Use soil test results to make recommendations for soil improvement with appropriate organic fertilisers and soil conditioners to ensure a mineral-balanced and healthy soil 3.2 Develop and implement an annual grazing program and strategies to optimize pasture growth and animal production 3.3 Develop and implement a strategy for the recycling of farm waste and effluent 3.4 Assess soil biological activity and apply suitable preparations and grazing strategies to improve the soil biota 3.5 Identify appropriate mulching and composting systems 3.6 Design and implement a plan using crop rotations to optimise soil fertility 3.7 Research the principles and application of biodynamic preparations
4. Manage animal health and welfare for	4.1 Plan strategies to preserve animal health including allowable treatments and grazing management in the short term and genetic

Element	Performance criteria
organic, biodynamic or biological production	improvement in the long term 4.2 Maintain livestock records to identify treated animals, including a record of all treatments including homeopathic remedies 4.3 Sustain the animal enterprise with pasture and suitable fodder and maintain consumption records to meet certification protocols
5 Manage customer feedback and satisfaction with organic, biodynamic or biological product quality and integrity	5.1 Develop and implement procedures to obtain, analyse and respond to customer feedback on farm product quality and integrity 5.2 Identify legal requirements to maintain organic, biodynamic or biological certification

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VBP155 Develop and manage a plan for sustainable production reflecting organic, biodynamic and biological farming principles.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB511 Develop and manage a plan for sustainable production reflecting sustainable production principles

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine directions for the organic, biodynamic or biological business
- audit the natural resources on the property
- monitor legal and certification requirements impacting on the management of the property
- develop management strategies to address natural resource management issues
- research information on production changes and methods for the chosen philosophy
- ability to interpret accurate data
- communicate information to people and groups inside and outside the industry sector
- record treatments of parasites and diseases of animals with suitable preparations according to animal welfare and organic, biodynamic and biological farming principles
- assess and sample soils
- interpret and make recommendations regarding outcomes of soil tests
- recognise plants and pasture species
- calculate a feed budget
- document production processes and activities including developing a flow chart for the supply chain
- document a risk assessment
- develop procedures to respond to customer feedback
- analyse benefits to the family and farm from adopting the philosophy.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- sustainable land management practices
- property planning process
- water, vegetation, livestock, pasture, soil, fire and wildlife management strategies within the accreditation guidelines
- legal requirements impacting on the whole farm plan
- risk management strategies
- credible sources of information relating to organic, biodynamic and biological farming principles and practices
- supply chain for the organic, biodynamic and biological farming sector and your position in the chain
- permitted/restricted and prohibited inputs and activities for Organic Production
- grazing management including feed budgeting and grazing strategies
- animal health and options for maintaining health based on pathogen life cycles and the use of suitable preparations
- maintaining biodiversity to complement the organic, biodynamic and biological farming philosophy
- principles of sowing according to moon phase and maintaining crops with biodynamic preparations.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB601 Develop export markets for produce

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to evaluate and develop a product for export.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They work in contexts that are subject to change and adapt a range of fundamental principles accordingly.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Evaluate export	1.1 Identify competitive advantages and disadvantages for the

Element	Performance criteria
potential	<p>proposed product in respect to the products entry to overseas markets</p> <p>1.2 Analyse features of potential markets in respect to cultural factors, quality requirements, government regulations and other economic, political and social factors</p> <p>1.3 Analyse business resources for their appropriateness and capacity to contribute to the marketing effort</p> <p>1.4 Identify available capital and time for the development of the export plan</p>
2. Develop export strategy	<p>2.1 Conduct customer analysis and the market niche defined</p> <p>2.2 Develop operational plan to address the market mix</p> <p>2.3 Prepare budgets to address the investment required in the operational plan</p> <p>2.4 Plan overseas visit to confirm the target market and initiate negotiations</p>
3. Implement export strategy	<p>3.1 Identify and address steps in an export transaction</p> <p>3.2 Identify and prepare documentation requirements for export</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB601A Develop export markets.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB601 Develop export markets for produce

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research and analyse product knowledge
- analyse a market and establish market potential
- develop and implement the export market strategy.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- sources of information in respect to export requirements
- requirements set out in standards, codes of practice, quality assurance (QA) processes and procedures
- marketing plan formats
- cash flow budgeting techniques
- sensitivity analysis and investment evaluation.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB602 Manage estate planning

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage and plan the succession and distribution of an estate within a family agricultural business context.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They work in contexts that are subject to change and adapt a range of fundamental principles accordingly.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify estate planning requirements	1.1 Identify and assess contingency and succession arrangements against enterprise and individual requirements 1.2 Identify and evaluate income continuation options to find best fit for enterprise requirements 1.3 Identify and distinguish personal and business goals 1.4 Consider needs of those affected by succession arrangements in estate planning
2. Clarify estate planning arrangements	2.1 Make clear plans for retirement and inheritance to all relevant parties 2.2 Consider legal and financial implications of succession planning in determining succession arrangements and estate distribution 2.3 Discuss, clarify and mediate apparent inequities in estate distribution 2.4 Seek external advice as required to clarify obligations and potential effects on business performance
3. Implement estate planning	3.1 Determine and implement strategies for estate distribution and succession 3.2 Monitor and review estate structures and transfer arrangements against tax and legislative requirements 3.3 Monitor estate planning and succession against enterprise performance 3.4 Complete relevant documentation to meet legal and procedural obligations

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB602A Manage estate planning.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB602 Manage estate planning

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify estate planning requirements
- clarify estate planning arrangements
- implement estate planning
- separate personal goals from enterprise goals
- clarify and mediate apparent inequities in estate distribution with relevant parties where necessary
- define agreements and contracts
- consider investment, financial and retirement options.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- effective interpersonal communication techniques
- conflict resolution, negotiation and mediation techniques
- solve problems relating to estate management
- goal setting strategies
- working knowledge of estate structures, retirement options, wills and estate planning procedures.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB603 Manage the production system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage the production system.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They work in contexts that are subject to change and adapt a range of fundamental principles accordingly.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Integrate plans for	1.1 Examine strategic, production, infrastructure and land

Element	Performance criteria
different sectors of the enterprise	<p>management plans to identify interactions between different sectors of the enterprise</p> <p>1.2 Determine types of interactions and their impacts on resources and production system performance over time</p> <p>1.3 Assess beneficial interactions and any potential additional benefits are identified for further improvements to the systems efficiency</p> <p>1.4 Assess detrimental interactions and adjust the production system to minimise potential losses</p> <p>1.5 Obtain and discuss information on innovations for use in the organisation and integrated with operational plans</p>
2. Develop and implement risk management strategies	<p>2.1 Analyse the business to identify its strengths and weaknesses as well as any threats to, or opportunities to improve, the organisations sustainability and profitability</p> <p>2.2 Consider potential results of threats in terms of natural resources, business assets and infrastructure</p> <p>2.3 Develop preventative and reactive contingency plans to minimise threats and maximise opportunities</p> <p>2.4 Ensure contingency plans aim to ensure business stability and profitability while protecting and preserving natural resources and business assets</p>
3. Analyse the overall performance of the production system	<p>3.1 Undertake whole-business physical and financial analyses to determine the long-term sustainability and profitability of the production system</p> <p>3.2 Prepare and discuss results of analyses with colleagues for input to future planning processes</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB603A Manage the production system.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB603 Manage the production system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- align relevant production systems with the enterprise strategic plan
- adjust production systems to meet the overarching sustainability requirements for the enterprise
- adopt a systemised approach to the incorporation of production systems into the business plan.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- marketplace in which the organisation operates
- property planning, financial management and enterprise budgeting systems and procedures
- relevant State or Territory legislation, regulations and codes of practice which impact on the management of the enterprise
- methods of measuring and implementing business and environmental sustainability
- financial analysis tools and techniques for land based businesses
- sources of information to assist in analysis of operational plans, resourcing and financial analysis
- monitoring strategies for a range of operational plans
- value and methods of risk assessment.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB604 Analyse business performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to analyse the business performance of an enterprise.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They work in contexts that are subject to change and adapt a range of fundamental principles accordingly.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Analyse financial	1.1 Interpret taxation reports and determine accounts to be true and

Element	Performance criteria
reports	fair 1.2 Review and interpret management reports generated by the enterprise 1.3 Determine distribution of profit
2. Use financial analysis tools	2.1 Calculate gross margins and relevant breakdowns of profit and loss 2.2 Calculate ratios related to production activity, solvency and liquidity, gearing and profitability 2.3 Source and compare relevant performance benchmarks 2.4 Identify and analyse trends in production and profitability
3. Identify opportunities for increasing profit	3.1 Assess yield or production potential and determine current position 3.2 Identify key issues related to production efficiency 3.3 Identify key issues related to market return
4. Develop strategies for improving business performance	4.1 Use Strengths, Weaknesses, Opportunities and Threats (SWOT) approach to determine possible strategies for addressing production and marketing issues 4.2 Perform sensitivity analyses to evaluate strategies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB604A Analyse business performance.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB604 Analyse business performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- analyse financial reports
- use financial analysis tools
- identify profit drivers for the enterprise
- benchmark business performance against other businesses
- develop strategies for improving business performance.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- financial reports
- financial analysis tools
- performance benchmarking
- issues related to production efficiency and marketing
- SWOT analysis and developing business strategies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB605 Manage business capital

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage the business capital of the business.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They work in contexts that are subject to change and adapt a range of fundamental principles accordingly.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Assess the capital needs of the business	1.1 Determine working capital and capital requirements for development 1.2 Determine return on capital or opportunity cost of development capital
2. Assess appropriate equity levels for the business	2.1 Assess risks associated with the business 2.2 Identify personal and business risk preferences 2.3 Analyse equity levels in comparable enterprises using benchmark data
3. Establish and maintain appropriate financing arrangements for the business	3.1 Determine capacity to service debt and meet liabilities 3.2 Sources of funds are identified and terms and conditions compared and evaluated 3.3 Conduct negotiations to ensure the establishment of the most favourable terms and conditions 3.4 Source loan funds and check agreements 3.5 Monitor costs of finance to keep them within defined budget limits 3.6 Manage relationships with finance providers 3.7 Monitor the economic environment and assess implications for the business
4. Monitor and review the mix of liabilities	4.1 Conduct regular reviews of the mix of liabilities and the costs and determine the benefits associated with reconfiguring loans 4.2 Review and renegotiate loans as appropriate
5. Monitor equity, return on equity	5.1 Review valuations on assets and monitor the effect on equity 5.2 Calculate returns on assets and returns on equity and use to assist business performance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB605A Manage business capital.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB605 Manage business capital

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess capital needs
- assess appropriate equity levels for a business
- establish and maintain appropriate financing arrangements
- review the mix of liabilities
- monitor key indicators of financial returns for the business.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- preparation of financial reports
- impacts resulting from changes to various macroeconomic factors
- sources of finance
- negotiation techniques
- concept of equity, Return on Assets (ROA), Return on Equity (ROE), Internal Rate of Return (IRR)
- bank and lending institution policies and requirements.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAGB606 Manage price risk through trading strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage price risk by developing a trading strategy.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They work in contexts that are subject to change and adapt a range of fundamental principles accordingly.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Conduct market research	1.1 Collate and evaluate estimates of supply and demand 1.2 Analyse past trends and assess possible future scenarios 1.3 Relate own products to market indicators
2. Determine price required	2.1 Calculate cost of production and determine break-even price 2.2 Calculate overhead costs to be allocated against the enterprise 2.3 Determine margins for profit and risk 2.4 Set forward price objectives to meet cost of production, contribution to overheads and profit required 2.5 Evaluate personal attitude to risk
3. Develop sales plan	3.1 Evaluate cash markets and assess projected price trends 3.2 Obtain and assess forward contract information 3.3 Obtain and assess futures prices 3.4 Evaluate selling options against price objectives and the assessment of price movement risk 3.5 Assess taxation and cash flow implications 3.6 Develop appropriate mix of sale options in a trading strategy 3.7 Develop contingency plans to address possible shifts in price trend
4. Implement trading strategy	4.1 Seek appropriate expertise as required 4.2 Monitor market information and adjust trading strategy according to contingency plans

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAGB606A Manage price risk through trading strategy.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAGB606 Manage price risk through trading strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine cost of production
- allocate overhead costs against enterprises
- assess risk to financial returns through market or currency movements
- analyse trends and evaluating forecasts
- monitor and assess price movements
- implement a trading strategy for price risk management.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- supply, demand and price relationships
- price trends and sources of market information/forecasts
- cost of production
- overhead costs
- risk assessment and attitudes to risk
- selling options for the relevant commodity
- operation of futures markets, forward selling arrangements, put options
- foreign exchange rates
- contract law
- cash flow and taxation planning
- contingency planning.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAIS201 Assist with artificial insemination procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist with artificial insemination procedures.

This unit applies to those who provide technical support to a registered veterinarian or licensed inseminator.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Artificial Insemination (AIS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assist with preparation of animals for insemination	1.1 Detect animals on heat and record or report information 1.2 Move animals on heat to the insemination area 1.3 Restrain animals using safe and humane techniques in line with enterprise animal welfare policies 1.4 Provide assistance for the appropriate preparation of tools and equipment 1.5 Select, use and maintain suitable personal protective equipment and clothing in line with enterprise work health and safety policies
2. Support insemination procedure	2.1 Sterilise and clean or dispose of insemination equipment 2.2 Identify and prepare recipient animal 2.3 Restrain recipient animal appropriately and assist the insemination procedure to optimise results 2.4 Record details of insemination, identification of the semen used and identifies of the female animals in line with enterprise requirements
3 Clean work area and equipment	3.1 Dispose of waste and debris appropriately in line with enterprise environmental policies 3.2 Clean and maintain work area and equipment appropriately 3.3 Return animals to designated area 3.4 Clean and maintain restraints and harnesses

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAIS201A Assist with artificial insemination procedures.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAIS201 Assist with artificial insemination procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assist with preparation of animals for insemination
- support insemination procedure
- clean work area and equipment
- follow work health and safety policies
- follow animal welfare practices
- follow enterprise environmental policies.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- resource and manpower requirements, biosecurity requirements, industry standards, codes of practice and procedures for artificial insemination of the livestock species
- reproductive anatomy and reproductive physiology in the livestock species
- signs of heat, methods for detection of oestrus and management of animals on heat
- techniques and methods for humane handling and restraint of the livestock species
- relevant animal welfare practices for the conduct of artificial insemination in the livestock species
- types, uses, maintenance, servicing and storage of equipment
- methods and procedures for cleaning and sterilisation of equipment used for artificial insemination
- procedures for handling, measurement and usage of cleaning chemicals, disinfectants and sanitisers
- relevant work health and safety requirements
- relevant documentation and records that are required

- relevant environmental and sustainability requirements, and procedures for disposal and management of wastes and debris
- requirements and procedures for cleaning and maintaining work areas.

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAIS301 Collect semen

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to routinely collect semen for artificial insemination of livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

Working with entire male animals is an inherently dangerous activity. Individuals who work at this level must be thoroughly competent in all aspects of handling entire male animals.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Artificial Insemination (AIS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare animals for collecting semen	1.1 Follow enterprise work health and safety, biosecurity and animal welfare policies 1.2 Select, use and maintain suitable personal protective equipment and clothing 1.3 Select and prepare appropriate equipment for semen collection 1.4 Prepare nominated sire at the appropriate semen collection area 1.5 Collect semen from the nominated sire using appropriate techniques 1.6 Transfer semen to the processing and storage area 1.7 Follow enterprise policies on testing of semen, blood and/or other biological samples for diseases which can be transmitted from male animals to female animals
2. Complete collection procedures	2.1 Carry out post-collection procedures 2.2 Dispose of waste in line with enterprise environmental policies 2.3 Clean work area and equipment appropriately 2.4 Return animals to the designated area
3. Document and record data	3.1 Complete required documentation and records accurately and promptly 3.2 Supply information to relevant authorities to promote research and improvements in industry practice

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAIS301A Collect semen.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAIS301 Collect semen

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare animals for collecting semen
- prepare for and undertake hygienic collection of semen
- collect semen using industry approved collection techniques
- transfer semen safely to the preparation and storage area
- handle animals in a humane, stress free, and safe manner
- clean up work areas and equipment and record data.
- follow enterprise work health and safety, biosecurity and animal welfare policies.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, uses and maintenance of personal protective equipment
- resource and manpower requirements, biosecurity and animal welfare requirements, industry standards, codes of practice and procedures for artificial insemination of the livestock species
- types, uses, maintenance, servicing and storage of equipment
- requirements and features of semen collection work areas
- requirements, methods and techniques for processing and storage of semen
- techniques and methods for humane handling and restraint of the livestock species
- relevant animal welfare practices for the conduct of artificial insemination in the livestock species
- methods and procedures for cleaning and sterilisation of equipment used for artificial insemination
- types of diseases transmissible from male to female animals through artificial insemination/semen, and methods of testing, control and prevention

- procedures for handling, measurement and usage of cleaning chemicals, disinfectants and sanitisers
- relevant work health and safety policies
- relevant environmental requirements, and procedures for disposal and management of wastes and debris
- requirements and procedures for cleaning and maintaining work areas
- relevant documentation and records that are required.

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAIS302 Process and store semen

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to process and store semen collected from livestock for the purpose of artificial insemination.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Artificial Insemination (AIS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare diluent	1.1 Clean containers to be used for preparation of diluent according to enterprise hygiene standards

Element	Performance criteria
	1.2 Calibrate equipment and tools used in processing semen 1.3 Heat distilled water for use in diluent to required temperature 1.4 Add distilled water to powdered diluent in correct proportions 1.5 Store diluent correctly before use
2 Determine number of semen doses	2.1 Determine concentration of the ejaculate using appropriate equipment 2.2 Calculate number of doses according to the concentration determined
3 Assess quality of semen batch	3.1 Examine semen batch and check for contamination 3.2 Assess motility of semen 3.3 Compare quality of semen batch against enterprise benchmarks 3.4 Discard poor quality semen appropriately
4 Check incubator	4.1 Check temperature and other operational parameters of incubator before use 4.2 Report and resolve problems with incubator before operation
5 Prepare semen doses	5.1 Add diluent to semen batch 5.2 Divide diluted semen into doses 5.3 Label each semen dose 5.4 Place doses in incubator 5.5 Assess quality of prepared doses 5.6 Record data in line with enterprise requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAIS302A Process and store semen.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAIS302 Process and store semen

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare diluent
- determine number of semen doses
- assess quality of semen batch
- check incubator temperature and other operational parameters before use
- prepare and label semen doses
- record semen details.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- methods and procedures for cleaning and sterilisation of containers, equipment and tools
- calibration of equipment and tools
- preparation and storage of diluent
- types, uses, maintenance and servicing of equipment used for determining semen concentration and quality
- calculation of semen doses
- criteria, characteristics and methods for assessing semen quality
- requirements and methods for the disposal of semen
- types, functions and maintenance of incubator
- requirements, methods and procedures for preparing semen doses
- effects and impacts of environmental conditions, equipment factors and human factors on viability of semen doses
- enterprise recording requirements.

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAIS303 Artificially inseminate livestock

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to artificially inseminate livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

In some jurisdictions technicians performing commercial artificial insemination may require accreditation. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Artificial Insemination (AIS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for insemination of	1.1 Organise resources and personnel to ensure optimal timing of the insemination process

Element	Performance criteria
animals	1.2 Follow appropriate hygiene procedures 1.3 Access semen supplies from appropriate and reliable sources, and store appropriately 1.4 Prepare animals to maximise success of insemination program 1.5 Follow enterprise work health and safety, animal welfare and biosecurity policies 1.6 Select, use and maintain suitable personal protective equipment and clothing
2. Inseminate animals	2.1 Select, prepare and thaw semen in compliance with relevant codes of practice and industry standards 2.2 Ensure insemination equipment is sterile, clean and used appropriately 2.3 Identify and observe intended recipient and check for signs of ovulation 2.4 Restrain and prepare intended recipient humanely and appropriately for insemination 2.5 Carry out insemination under appropriate hygiene conditions
3. Complete documentation and records	3.1 Document and record data on insemination process accurately and promptly 3.2 Review historical data to measure performance of herd in insemination program 3.3 Calculate and use conception rates to determine success of AI program 3.4 Supply information to relevant authorities to promote research and improvements in industry practice 3.5 Identify and record necessary modifications to herd program to assist continuous improvement processes
4. Clean work area and equipment	4.1 Dispose of waste appropriately in line with enterprise environmental policies 4.2 Clean and maintain work area and equipment appropriately 4.3 Return animals to designated areas

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAIS303A Artificially inseminate livestock.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAIS303 Artificially inseminate livestock

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed artificially inseminating livestock.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for insemination
- observe animals on heat to detect correct insemination timing
- prepare equipment and work sites
- correctly select and thaw semen for insemination
- restrain and inseminate animals using recognised methods that reduce stress
- complete documentation and records
- clean work area and equipment
- follow enterprise work health and safety, biosecurity and animal welfare policies.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- working knowledge of enterprises herd improvement or animal production plan
- basic breeding principles, including the oestrus cycle and its significance
- pregnancy testing
- animal health and abnormalities
- preparation techniques such as puberty stimulation
- semen thawing and storage techniques
- preparation requirements for artificial insemination of animals
- animal movement and behavioural characteristics
- harness and restraint equipment, components and functions

- handling techniques, restraint methods and when to use them
- enterprise and industry identification system for animals
- personal protective equipment and when and how it should be used
- relevant State/Territory legislation, regulations and codes of practice with regard to workplace OHS and animal welfare
- legislative and regulatory controls with regard to artificial insemination
- enterprise and industry policies with regard to artificial insemination and recording and reporting routines.

Assessment Conditions

The candidate must demonstrate knowledge of:

- resource and manpower requirements, biosecurity requirements, industry standards, codes of practice and procedures for artificial insemination of the livestock species
- hygiene procedures for artificial insemination
- requirements, methods and procedures for sourcing, acquiring, transporting and storing semen
- requirements and procedures for preparation of artificial insemination
- types, uses and maintenance of personal protective equipment
- requirements and procedures for selection, preparation and thawing of semen
- methods and procedures for cleaning and sterilisation of equipment used for artificial insemination
- procedures for handling, measurement and usage of cleaning chemicals, disinfectants and sanitisers
- relevant anatomy and physiology of female livestock
- reproductive physiology and behaviour of female livestock
- techniques and methods for humane handling and restraint of the livestock species
- relevant animal welfare practices for the conduct of artificial insemination in the livestock species
- relevant documentation and records that are required
- relationship, cause and effect between herd performance and artificial insemination programs
- criteria and methods for determining conception rates
- requirements, methods and procedures for improving the success of artificial insemination and its impacts on herd performance
- relevant environmental and sustainability requirements, and procedures for disposal and management of wastes and debris
- requirements and procedures for cleaning and maintaining work areas and equipment
- enterprise work health and safety policies

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCAIS401 Supervise artificial breeding and embryo transfer programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise artificial breeding and embryo transfer programs.

This unit also applies to artificial breeding technicians who provide advice to farmers.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Artificial Insemination (AIS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine breeding method	1.1 Review options for artificial breeding to determine most suitable and affordable method according to breeding objectives 1.2 Select and match artificial breeding option to resources and breeding objectives 1.3 Identify, source and arrange resource implications of breeding programs 1.4 Prepare program schedules according to available resources 1.5 Ensure suitable personal protective equipment for staff and self are available in line with enterprise work health and safety policies
2. Implement breeding method	2.1 Check the disease status of donor and recipient animals in line with enterprise biosecurity policies 2.2 Obtain genetic material from appropriate and reliable source 2.3 Receive, check and store genetic material appropriately 2.4 Handle animals appropriately in line with animal welfare policies 2.5 Ensure females are inseminated at the optimal stage of the oestrus cycle where artificial insemination is the selected option 2.6 Check to ensure intended recipients are prepared and correctly scheduled where embryo transfer (ET) is the selected option 2.7 Provide hormone injections to intended recipients at appropriate stages of transfer programs where ET is the selected option 2.8 Conduct embryo transfers in compliance with relevant codes of practice and industry standards where ET is the selected option
3. Monitor and maintain program	3.1 Monitor the need for return to service of intended recipient 3.2 Monitor health of livestock in the breeding program 3.3 Review adjustments in genetic material transfer practices to enhance success of future programs 3.4 Document and maintain data on genetic material transfer programs

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCAIS401A Supervise artificial breeding and/or embryo transfer programs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCAIS401 Supervise artificial breeding and embryo transfer programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine breeding method
- implement breeding method
- monitor and maintain program
- apply work health and safety requirements in the context of own work
- apply biosecurity requirements in the context of own work
- apply animal welfare practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- legislative requirements, biosecurity requirements, codes of practice, industry standards and procedures for artificial insemination and embryo transfer
- resources requirements, types and characteristics of artificial breeding methods and programs
- advantages, disadvantages and cost-benefit analysis of artificial breeding programs for the livestock enterprise
- types, uses and maintenance of personal protective equipment
- requirements, methods and procedures for sourcing, acquiring, transporting and storing genetic material
- relevant anatomy and physiology of female livestock
- reproductive physiology, reproductive behaviour and pregnancy development of female livestock
- requirements and procedures for artificial insemination
- requirements and procedures for embryo transfer

- causes, signs, treatment and management of reproductive diseases and complications in female livestock
- requirements, methods and procedures for improving the success of artificial breeding programs and their impacts on herd performance
- relevant documentation and records that are required
- relevant work health and safety and animal welfare requirements.

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB201 Apply a range of treatments to trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to remedy common tree problems by applying treatments including alleviating tree stress and improving soil condition. Treating trees also requires consideration of the environmental implications of treatment methods, techniques and procedures.

This unit applies to individuals who undertake defined activities, work in a structured context, apply knowledge and skills to demonstrate autonomy and limited judgement, and provide solutions to a limited range of predictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

AHCCHM201 Apply chemicals under supervision

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to apply tree treatments	1.1 Locate trees on streets using maps 1.2 Recognise trees requiring treatment 1.3 Identify site hazards, assess risks and report to supervisor 1.4 Confirm work zone with work crew and monitor site 1.5 Select and use personal protective equipment 1.6 Select, prepare, and carry out pre-operational and safety checks, on tools and equipment 1.7 Confirm first aid and emergency personnel, equipment and procedures 1.8 Communicate with work team during operations using voice, hand and whistle signals 1.9 Read packaging labels to maintain awareness of work hazards 1.10 Clean or sterilise tools and equipment to avoid disease transfer and biosecurity issues 1.11 Record and implement work health, safety, site, environmental and traffic control measures
2. Modify environment to maintain health and vigour of tree	2.1 Remove competing plants to ensure maintenance of adequate space, light, water and nutrient requirements of tree 2.2 Apply nutrient additives at specified rates and locations 2.3 Ameliorate soil structure in relation to aeration and drainage 2.4 Ameliorate soil condition with plant-based mulch application 2.5 Determine benefit and limits of decompaction methods
3. Apply chemical treatment	3.1 Calibrate application equipment 3.2 Apply treatment with due regard for environmental implications 3.3 Apply chemicals under supervision
4. Complete treatment operations	4.1 Maintain awareness of effect on environment of own work practices 4.2 Clean and store personal protective equipment 4.3 Clear and clean site 4.4 Report applications and treatments and update work records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCARB201A Apply a range of treatments to trees.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB201 Apply a range of treatments to trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- locating trees on streets using maps
- recognising trees requiring treatment
- identifying site hazards, assessing risks and reporting to supervisor
- confirming work zone with work crew and monitoring site
- selecting and use personal protective equipment
- selecting, preparing, and carrying out pre-operational and safety checks, on tools, equipment and machinery
- confirming first aid personnel, equipment and procedures applicable to tree work
- communicating with work team during operations
- reading packaging labels to maintain awareness of work hazards
- cleaning or sterilising tools and equipment
- avoiding disease transfer and biosecurity issues
- recording and implementing work health, safety, site, environmental and traffic control measures
- removing competing plants to ensure maintenance of adequate space, light, water and nutrient requirements of tree
- applying nutrient additives at specified rates and locations
- amelioration of soil structure in relation to aeration and drainage
- amelioration of soil condition with plant-based mulch application
- determining benefit and limits of decompaction methods
- calibrating application equipment
- applying treatment with due regard for environmental implications
- applying chemicals under supervision

- maintaining awareness of effect on environment of own work practices
- cleaning and storing personal protective equipment
- clearing and cleaning sites
- awareness of work health and safety in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- methods of locating trees on streets and maps
- tree recognition
- methods of identifying site hazards, assessing risks and reporting to supervisors
- risk assessment systems
- confirmation of work zones
- how trees react to stress
- personal protective equipment
- pre-operational and safety checks, on tools, equipment and machinery
- first aid
- first aid personnel, equipment, and first aid plan procedures
- communication systems using voice, hand and whistle signals
- application of packaging instructions
- methods of cleaning and sterilising tools and equipment
- methods of disease transfer
- biosecurity principles and practices
- work health, safety, site, environmental and traffic control measures
- plant removal methods
- soil nutrition
- rates of nutrient application
- soil amelioration techniques
- soil structure, aeration and drainage
- mulch
- compaction and decompaction
- correct preparation prior to applying treatment to trees
- calibration techniques of application equipment
- chemical application techniques, usage restrictions and risk controls
- environmental implications of chemical use in own work practices.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - spray application equipment
 - spill kit
 - measuring and weighing equipment
 - signage - chemical use
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - traffic management kit
 - signage - work zone
 - trees
- materials:
 - tree recognition form
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form
 - work communications form
 - chemical and treatment application form
 - tree maintenance form
 - soil assessment form
 - work site operations form
 - work records form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB206 Operate and maintain stump grinding machines

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate motorised stump grinding machines to remove tree stumps from the ground.

This unit applies to individuals who undertake defined activities with specialised tools and methods, work in a structured context, apply knowledge and skills to demonstrate autonomy and limited judgement, and provide solutions to a limited range of predictable problems. Work is implemented with low risk work procedures, in accordance with manufacturers recommendations and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards

Pre-requisite Unit

AHCARB210 Work effectively in the arboriculture industry

HLTAID003 Provide first aid

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare for stump removal operations	1.1 Determine site location and details and clarify with supervisor 1.2 Determine the depth below ground of stump grinding works 1.3 Determine and confirm location and depth of above-and-below-ground services 1.4 Unload stump grinder machine 1.5 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk
2. Carry out pre-operational and safety checks	2.1 Check maintenance log is complete and up to date 2.2 Check belts are appropriately tensioned and in good order 2.3 Check teeth are sharp 2.4 Check no teeth are missing or loose 2.5 Check tyre pressure is correct or tracks are appropriately tensioned 2.6 Check levels of oils and fluids 2.7 Check hoses 2.8 Check brakes are operational 2.9 Check cutter head rotates freely and is not obstructed
3. Check stump grinder safety features	3.1 Check guards for belt, power take-off (PTO) and grinder head are in place 3.2 Check kill switch clearly identifiable and working 3.3 Check that dead-man is working if fitted 3.4 Check debris curtain present and in good order 3.5 Check dust suppression system is working if fitted
4. Complete preparations for work	4.1 Select and use appropriate personal protective equipment 4.2 Confirm first aid and emergency personnel, equipment and procedures 4.3 Expose stump surrounds manually and check for and remove foreign bodies 4.4 Moisten surrounds as required 4.5 Record and implement work health, safety, site, environmental and traffic control measures
5. Position stump grinder	5.1 Determine exclusion zone for work operations 5.2 Isolate exclusion zone with barriers and signs 5.3 Position machine level within recommended ranges to avoid rollover 5.4 Avoid holes with machine wheels 5.5 Position machine to minimise impact from flying debris

Element	Performance criteria
	5.6 Position operator in low risk position 5.7 Position operator to provide a clear view of the stump 5.8 Locate safety screens as required
6. Undertake removal operations	6.1 Communicate with work team during operations using voice, hand and whistle signals 6.1 Confirm work zone cleared prior to starting cutter head 6.3 Plan to complete a series of grinds across the stump 6.4 Start cutter head 6.5 Stop work if exclusion zone is breached and disengage cutter head if required 6.6 Position cutter head over stump 6.7 Engage cutter head into stump surface 6.8 Maintain engine speed in revolutions-per-minute (RPM) 6.9 Ensure grinding process is accurate, smooth and ergonomic 6.10 Grind stump to recommended depth of cut on each cutting pass 6.11 Ensure the cut size of each pass is not excessively deep causing the machine to labour excessively or to stall 6.12 Grind stump to predetermined spread and depth 6.13 Operate equipment without damaging underground services and surrounding areas
7. Remove grindings	7.1 Reposition machine away from ground stump 7.2 Disengage cutter head 7.3 Wait and remain clear of cutter head until cutter head stops moving 7.4 Remove build-up of grindings
8. Perform ongoing grinding operations	8.1 Make check in calls at prearranged times 8.2 Inspect grinder as required between stumps and when refuelling 8.3 Shutdown immediately if abnormal vibration or noise develops 8.4 Stop the engine before refuelling and allow engine to cool as required 8.5 Follow Safe Work Method Statement instructions for refuelling 8.6 Replace and secure fuel cap before restarting 8.7 Disengage cutter head and ensure a complete stop before moving to a new stump
9. Complete stump removal operation	9.1 Back-fill stump hole to original ground level 9.2 Maintain clean and safe work area throughout work and upon completion 9.3 Collect waste material and dispose of or recycle in a manner

Element	Performance criteria
	causing minimal environmental damage 9.4 Clean, maintain and store tools and equipment 9.5 Perform basic maintenance, including sharpening grinder and replacing teeth as required 9.6 Load grinder in accordance with Safe Work Method Statement 9.7 Secure grinder for transport 9.8 Update records of operator usage in log record 9.9 Update records of maintenance and replacement items

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCARB206A Undertake stump removal.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB206 Operate and maintain stump grinding machines

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed removing stumps using a motorised stump grinder using low-risk work procedures. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining site location and details and clarifying with supervisor
- determining the depth below ground of stump grinding works
- determining and confirm location and depth of above-and-below-ground services
- unload stump grinder machine
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- checking maintenance log complete and up to date
- checking belts appropriately tensioned and in good order
- checking teeth are sharp
- checking no teeth are missing or loose
- checking tyre pressure is correct or tracks are appropriately tensioned
- checking levels of oils and fluids
- checking hoses
- checking brakes are operational
- checking cutter head rotates freely and is not obstructed
- checking guards for belt, power take-off (PTO) and grinder head are in place
- checking kill switch clearly identifiable and working
- checking that dead-man is working if fitted
- checking debris curtain present and in good order
- checking dust suppression system is working if fitted
- selecting and use appropriate personal protective equipment
- confirming first aid and emergency personnel, equipment and procedures
- exposing stump surrounds manually and check for and remove foreign bodies
- moistening surrounds as required

- recording and implementing work health, safety, site, environmental and traffic control measures
- determining exclusion zone for work operations
- isolating exclusion zone with barriers and signs
- positioning machine level within recommended ranges to avoid rollover
- avoiding holes with machine wheels
- positioning machine to minimise impact from flying debris
- positioning operator in low risk position
- positioning operator to provide a clear view of the stump
- locating safety screens as required
- communicating with work team during operations using voice, hand and whistle signals
- confirming work zone cleared prior to starting cutter head
- planning to complete a series of passes across the stump
- starting cutter head
- stopping work if exclusion zone is breached and disengage cutter head if required
- positioning cutter head over stump
- engaging cutter head into stump surface
- maintaining engine speed in revolutions-per-minute (rpm)
- ensuring grinding process is accurate, smooth and ergonomic
- grinding stump to recommended depth of cut on each cutting pass
- ensuring the cut size of each pass is not excessively deep causing the machine to labour excessively or to stall
- grinding stump to predetermined spread and depth
- operating equipment without damaging underground services and surrounding areas
- repositioning machine away from ground stump
- disengaging cutter head if risk of making unwanted contact
- waiting and remaining clear of cutter head until cutter head stops moving
- removing build-up of grindings
- making check in calls at prearranged times
- inspecting grinder as required between stumps and when refueling
- shutting down immediately if abnormal vibration and/or noise develops
- stopping the engine before refueling and allow engine to cool as required
- following safe work method statement instructions for refueling
- replacing and securing fuel cap before restarting
- disengaging cutter head and ensure a complete stop before moving to a new stump
- back-filling stump hole to original ground level
- maintaining clean and safe work area throughout work and upon completion
- collecting waste material and dispose of or recycle in a manner causing minimal environmental damage
- cleaning, maintaining and storing tools and equipment
- performing basic maintenance, including sharpening grinder and replacing teeth as required
- loading grinder in accordance with safe work method statement

- securing grinder for transport
- updating records of operator usage in log record
- updating records of maintenance and replacement items.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- site hazard identification methods
- site risk assessment systems
- control measures for work health, safety, site, environmental and traffic control
- personal protective equipment
- communication systems using voice, hand and whistle signals
- first aid
- emergency procedures
- methods of locating services
- pre-operational checks of stump grinders including:
 - logs
 - belts
 - teeth
 - tyre pressure
 - oils and fluids
 - hoses
 - brakes
 - cutter head
 - guards
- safety checks of stump grinders including:
 - guards for belt, power take-off (PTO) and grinder head
 - kill switch
 - dead man
 - debris curtain
 - dust suppression
- exclusion zones
- operation of stump grinders
- cutter head engagement and disengagement
- positioning of stump grinders and operator
- work zone
- methods of determining spread and depth of cut
- recommended depths of cut
- cutting plan
- engine speed (rpm)
- abnormal vibration

- methods of back-filling
- environmental implications of removal activities
- appropriate methods of collecting waste material and disposal or recycling methods
- basic maintenance of stump grinders
- methods of sharpening stump grinders
- methods of teeth replacement of stump grinders
- records of operator usage in log record
- methods of maintaining records for basic maintenance and replacement items.

Assessment Conditions

It is an industry requirement for competency in this unit that assessment includes a log record, verifying ten (10) hours of operating a stump grinder, and five (5) hours of unloading and loading, setup and pre-operational and safety checks, preparatory work, backfilling and cleaning up, sharpening and basic maintenance, performed by the candidate.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - stump grinder
 - sharpening equipment
 - refuelling kit
 - spill kit
 - emergency communication system
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - traffic management kit
 - signage – work zone
 - tree stumps
- materials:
 - stump grinder operations form
 - hazard identification and risk control form
 - pre-operational and safety check form
 - emergency preparation form

- work communications form
- work records form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB207 Perform ground based rigging

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to perform ground based rigging. This unit does not cover crane operations.

The unit applies to ground based workers who undertake defined activities with specialised tools and methods, work in structured and changing contexts, apply knowledge and skills to demonstrate autonomy and limited judgement, and provide solutions to a limited range of predictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

AHCARB311 Tie, dress, set and finish arborist knots

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Assist in preparation of work site	1.1 Determine location of worksite and correct tree from scope of works 1.2 Identify site hazards, assess risks and report to supervisor 1.3 Confirm work zone with work crew and monitor site 1.4 Confirm first aid and emergency personnel, equipment and procedures 1.5 Record and implement work health, safety, site, environmental and traffic control measures
2. Prepare for rigging	2.1 Assist with tree examination by observation of defects 2.2 Discuss rigging method with work crew 2.3 Confirm rigging method supports identified risk controls 2.4 Select appropriate rigging equipment 2.5 Examine, assemble, install rigging equipment and check for defects 2.6 Select and use appropriate personal protective equipment
3. Perform rigging operations	3.1 Communicate with work team during operations using voice, hand and whistle signals 3.2 Tie, dress, set and finish arborist knots as required for rigging task 3.3 Monitor rigging system, work team movements and environmental conditions 3.4 Maintain effective communications specific to the rigging task 3.5 Control load and raise, balance, lower or redirect as communicated 3.6 Adjust rigging as required for mass or dimensions of load 3.7 Disconnect load from rigging system 3.8 Check rigging equipment components 3.9 Return appropriate components to aerial work team member
4. Complete rigging operations	4.1 Remove load from drop zone 4.2 Confirm completed rigging operation 4.3 Clean and check tools, equipment and machinery, and store 4.4 Report and tag faulty or worn tools and equipment 4.5 Clean and store personal protective equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCARB207A Perform ground based rigging.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB207 Perform ground based rigging

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed using ground based rigging to raise, lower, control and redirect a load during tree pruning and tree removal. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining location of worksite
- determining correct tree from scope of works
- identifying site hazards, assess risks and report to supervisor
- confirming work zone with work crew and monitoring site
- confirming first aid and emergency personnel, equipment and procedures
- recording and implementing work health, safety, site, environmental and traffic control measures
- assisting with tree examination by observation of defects
- discussing rigging method with work crew
- confirming rigging method supports identified risk controls
- selecting appropriate rigging equipment
- examining, assembling, installing and checking rigging equipment for defects
- selecting and using appropriate personal protective equipment
- communicating with work team during operations using voice, hand and whistle signals
- tying, dressing, setting and finishing arborist knots as required for rigging task
- monitoring rigging system, work team movements and environmental conditions
- maintaining effective communications specific to the rigging task
- controlling load and raising, balancing, lowering or redirecting as communicated
- adjusting rigging as required for mass or dimensions of load
- disconnecting load from rigging system
- checking rigging equipment components
- returning appropriate components to aerial work team member

- removing load from drop zone
- confirming completed rigging operation
- cleaning and checking tools, equipment and machinery, and storing
- reporting and tagging faulty or worn tools and equipment
- cleaning and storing personal protective equipment
- use of industry-standard terminology to describe rigging processes and equipment
- applying work health and safety requirements in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- work zone
- first aid, emergency personnel, equipment and procedures
- work health, safety, site, environmental and traffic control measures
- tree examination
- observation of tree defects
- rigging equipment
- rigging methods
- rigging system
- examination of rigging equipment for defects
- examination of rigging equipment
- assembling rigging equipment
- installing rigging equipment
- checking rigging equipment
- personal protective equipment
- voice, hand and whistle signals
- communications specific to the rigging task
- environmental conditions
- tying, dressing, setting and finishing arborist knots
- controlled loads
- load raising
- lowering loads
- redirecting loads
- balancing load on centre of gravity
- rigging adjustments
- mass of load
- dimensions of load
- rigging equipment components
- rigging operation
- tagging faulty or worn tools and equipment.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - rigging equipment
 - static and dynamic rope kit
 - harness
 - lowering and friction devices
 - high decibel whistle
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - rescue kit
 - traffic management kit
 - signage – work zone
 - trees
- materials:
 - rigging operations form - ground based
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form
 - site assessment form
 - tree recognition form
 - work communications form
 - work site operations form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB208 Recognise trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recognise trees and their environmental and social benefits.

This unit applies to individuals who undertake defined activities, work in a structured context, apply knowledge and skills to demonstrate autonomy and limited judgement, and provide solutions to a limited range of predictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Examine tree features	1.1 Locate trees on streets using maps 1.2 Examine and record form, structures and local environment of tree 1.3 Examine and record shape, colour and size of leaves

Element	Performance criteria
	1.4 Examine and record features of buds, branches and bark 1.5 Examine and record flower type, colour and shape 1.6 Examine and record features of fruit if present 1.7 Use all relevant available senses to assist in tree recognition
2. Examine tree condition	2.1 Examine tree for general condition 2.2 Observe signs and symptoms of diseases, pests and problems that assist in recognition of tree 2.3 Record condition of tree and signs and symptoms of diseases, pests and problems on hazard identification form and report to supervisor
3. Recognise tree	3.1 Use field guides and photographs to assist in tree recognition 3.2 Recognise tree using common name and botanical name where possible 3.3 Request confirmation of tree recognition from work team in common and botanical names as required
4. Recognise tree benefits	4.1 Examine tree for existing habitat use and food source supply 4.2 Recognise environmental benefits provided by tree in current location 4.3 Recognise value of benefits to the client and community
5. Report on results	5.1 Record tree features and observations of tree recognition process 5.2 Note key features observed in the process of tree recognition 5.3 Inform client or organisation as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB208 Recognise trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- locating trees on streets using maps
- examining and recording form, structures and local environment of tree
- examining and recording shape, colour and size of leaves
- examining and recording features of buds, branches and bark
- examining and recording flower type, colour and shape
- examining and recording features of fruit if present
- using all relevant available senses to assist in tree recognition
- examining tree for general condition
- observing signs and symptoms of diseases, pests and problems that assist in recognition of tree
- recording condition of tree and signs and symptoms of diseases, pests and problems on hazard identification form and report to supervisor
- using field guides and photographs to assist in tree recognition
- recognising tree using common name and botanical name where possible
- requesting confirmation of tree recognition from work team in common and botanical names as required
- examining tree for existing habitat use and food source supply
- recognising environmental benefits provided by tree in current location
- recognising value of benefits to the client and community
- recording tree features and observations of tree recognition process
- noting key features observed in the process of tree recognition
- informing client or organisation as required.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- methods of locating trees on streets using maps
- form, structures and local environment of tree
- shape, colour and size of leaves
- features of buds, branches and bark
- flower type, colour and shape
- features of fruit if present
- use of sensory methods in tree recognition
- general condition of trees
- signs and symptoms of diseases, pests and problems that assist in recognition of trees
- hazard identification forms
- field guides and photographs that assist in tree recognition
- recognition of common names of trees and botanical name where possible
- tree examination for existing habitat use and food sources
- environmental benefits provided by trees
- recognition of value of tree benefits to the client and community
- methods of recording tree features and observations of tree recognition process
- key features of trees observed in the process of tree recognition
- methods of informing client and organisation of tree recognition.

Assessment Conditions

It is an industry requirement for competency in this unit that assessment requires methods of assessment that focus on the process of recognition, incorporating the use of multiple reference sources and pathways to recognise trees.

Assessment must provide for a minimum of thirty-five (35) different trees local to the region.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - field guides

- camera/phone camera
- trees and tree samples
- materials:
 - tree recognition form
 - disease profile form
 - hazard identification and risk control form
 - work site operations form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB209 Assist with aerial rescue from the ground

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist with an aerial rescue where an injured person is in a tree or on an elevated work platform (EWP).

Aerial rescue is likely to be undertaken in emergency situations and involves close, effective team-work to ensure the safety of all personnel and the public during a rescue or the management of an aerial casualty.

The unit applies to ground based workers who undertake defined activities with specialised tools and methods, work in structured and changing contexts, apply knowledge and skills to demonstrate autonomy and limited judgement, and provide solutions to a limited range of predictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

HLTAID003 Provide first aid

AHCARB207 Perform ground based rigging*

AHCARB311 Tie, dress, set and finish arborist knots

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan rescue work	1.1 Identify site hazards, assess risks and report to supervisor 1.2 Confirm emergency communication system is working 1.3 Confirm emergency services contact numbers are documented 1.4 Select, prepare and check first aid equipment and rescue kit 1.5 Position rescue and first aid equipment for easy access 1.6 Clarify own role in rescue situations 1.7 Confirm first aid, rescue personnel, equipment and rescue plan procedures with work team prior to undertaking work 1.8 Select and use personal protective equipment 1.9 Communicate with work team during operations using voice, hand and whistle signals
2. Assist in rescue procedure	2.1 Attempt communication with casualty 2.2 Determine condition of casualty as accurately as possible 2.3 Call emergency services and electricity supply authority as required before assisting with rescue
3. Assist in lowering EWP bucket to the ground	3.1 Determine if the EWP is in contact or closer than 'Safe Approach Distances' with electrical wires and apparatus 3.2 Determine EWP is structurally stable 3.3 Maintain 'Safe Approach Distances' 3.4 Access EWP only if safe to do so 3.5 Access truck-based controls and lower bucket to ground if safe to do so
4. Assist in rescue of climbing worker	4.1 Determine if tree or climber is in contact or closer than 'Safe Approach Distances' with electrical wires and apparatus 4.2 Maintain communications with rescuer and casualty, work team and emergency personnel 4.3 Keep all ropes clear and free 4.4 Observe rescue route and provide feedback to rescuer 4.5 Assist with managing casualty as they approach ground
5. Lower climber needing assistance	5.1 Determine if tree or climber is in contact or closer than 'Safe Approach Distances' with electrical wires and apparatus 5.2 Inform climber of presence of electrical wires 5.3 Provide rescue equipment requested by the climber 5.4 Install or use existing high point as instructed

Element	Performance criteria
	5.5 Inform climber of lowering procedure 5.6 Install or use existing friction device to raise and lower the climber as required to lower the climber to the ground
6. Apply first aid on ground	6.1 Apply necessary first aid once casualty is on ground until medical professionals arrive
7. Complete rescue work	7.1 Secure worksite and control entry until appropriate authorities inspect and release site Follow procedures for reporting accidents 7.2 Isolate equipment involved in accident for potential investigation and prevent re-use until checked 7.3 Remove all rescue equipment in a controlled manner 7.4 Clean and store rescue equipment 7.5 Clean and store personal protective equipment 7.6 Maintain records of aerial rescue in appropriate format

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB209 Assist with aerial rescue from the ground

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed assisting in a rescue from an EWP and participating in the rescue of a climber from the ground. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- identifying site hazards, assessing risks and reporting to supervisor
- confirming emergency communication system is working
- confirming emergency services contact numbers are documented
- selecting and checking suitable safety equipment, rescue kit and personal protective equipment
- positioning rescue and first aid equipment for easy access
- clarifying own role in rescue situations
- confirm first aid, rescue personnel, equipment and rescue plan procedures with work team prior to undertaking work
- selecting and using personal protective equipment
- communicating with work team during operations using voice, hand and whistle signals
- attempting communication with casualty
- determining condition of casualty as accurately as possible
- calling emergency services and electricity supply authority as required before assisting with rescue
- determining if the EWP is in contact or closer than 'safe approach distances' with electrical wires and apparatus
- determining EWP is structurally stable
- maintaining 'safe approach distances'
- accessing EWP only if safe to do so
- accessing truck-based controls and lowering bucket to ground if safe to do so
- determining if tree or climber is in contact or closer than 'safe approach distances' with electrical wires and apparatus

- maintaining communications with rescuer and casualty, work team and emergency personnel
- keeping all ropes clear and free
- observing rescue route and provide feedback to rescuer
- assisting with managing casualty as they approach ground
- determining if tree or climber is in contact or closer than 'safe approach distances' with electrical wires and apparatus
- informing climber of presence of electrical wires
- providing rescue equipment requested by the climber
- installing or use existing high point as instructed
- informing climber of lowering procedure
- installing or using existing friction device to raise and lower the climber as required to lowering the climber to the ground
- applying necessary first aid once casualty is on ground until medical professionals arrive
- securing worksite and control entry until appropriate authorities inspect and release site
- follow procedures for reporting accidents
- isolating equipment involved in accident for potential investigation and preventing re-use until checked
- removing all rescue equipment in a controlled manner
- cleaning and storing rescue equipment
- cleaning and storing personal protective equipment
- maintaining records of aerial rescue in appropriate format
- use of industry-standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- emergency procedures to assist in ground-based rescues of EWP and climbing workers
- hazard identification methods
- risk assessment systems
- Safe Approach Distances
- recognition of live electrical wires or apparatus
- electrical wires and apparatus safety
- first aid procedures
- contents of a first aid kit
- use of a first aid kit
- emergency services communication systems
- emergency services contact numbers
- emergency plans
- appropriate placement of rescue equipment
- rescue kits
- rescue personnel, equipment and rescue plan procedures
- how to control risk to rescuer, victim and others

- types of reporting required after rescue
- personal protective equipment
- how to deal with an emergency
- lowering mechanisms for an aerial rescue
- work health and safety records with regards to incident reporting.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - rescue kit
 - rescue dummy
 - high decibel whistle
 - rigging equipment
 - static and dynamic rope kit
 - harness
 - lowering and friction devices
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - traffic management kit
 - signage – work zone
 - trees
- materials:
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form
 - rescue assistance form
 - work communications form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB210 Work effectively in the arboriculture industry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to work effectively in the arboriculture industry.

This unit applies to individuals who undertake defined activities, work in a structured context, apply knowledge and skills to demonstrate autonomy and limited judgement, and provide solutions to a limited range of predictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Apply knowledge of	1.1 Identify key industry sectors and occupations in arboriculture

Element	Performance criteria
the arboriculture industry	industry 1.2 Recognise and use tools and equipment common in arboriculture industry 1.3 Recognise and use common names for trees common in the area and their physiology and growth habits 1.4 Recognise and locate trees on streets using maps 1.5 Describe arboriculture-specific risks 1.6 Describe plant attributes, specific handling and growth requirements of trees 1.7 Recognise the benefits of trees and values of those benefits 1.8 Recognise risk of harm to self and others from dust, toxic plant parts, fungi, insects, animals and other substances
2. Manage own work	2.1 Interpret written or verbal work instructions and clarify inconsistencies with supervisor 2.2 Identify deadlines and plan priorities with supervisor 2.3 Report variations and difficulties to supervisor 2.4 Undertake own work, responsibilities and duties 2.5 Apply work health and safety requirements in the context of own work 2.6 Work within team and work environment in accordance with low risk work practices 2.7 Follow organisation's workplace procedures, site standards and requirements 2.8 Demonstrate a positive attitude to cooperation within workplace 2.9 Identify practices relating to sustainability, hygiene and biosecurity relevant to own work
3. Plan and prepare for work	3.1 Identify workplace hazards and report to supervisor 3.2 Select, wear and maintain personal protective equipment (PPE) suitable for work locations and conditions 3.3 Select PPE appropriate to noise levels 3.4 Prepare tools and equipment prior to use and check for faults 3.5 Use low risk operating procedures for a variety of equipment and tools in arboriculture 3.6 Implement requirements and issues with working in various weather conditions 3.7 Tag defective equipment and report faults to supervisor 3.8 Check tools and equipment for bluntness and sharpen if required 3.9 Check guards are fitted, securely attached and functioning where applicable
4. Carry out work	4.1 Move equipment and materials safely using appropriate manual

Element	Performance criteria
activities	handling methods 4.2 Carry out basic mechanical fault finding and basic tests on machinery and equipment 4.3 Test safety and emergency shutoff devices 4.4 Work safely around power sources, services and assets 4.5 Communicate with work team during operations using voice, hand and whistle signals 4.6 Tie, dress, set and finish arborist knots 4.7 Assist with traffic management around worksite 4.8 Assist in emergency and rescue situations 4.9 Confirm first aid and emergency personnel, equipment and procedures 4.10 Manage ropes and other objects in the work zone 4.11 Monitor the movement and whereabouts of other workers 4.12 Maintain and monitor safety and security of equipment while on-site
Complete work activities	5.1 Recycle or dispose of waste materials 5.2 Clean and store tools and equipment and carry out basic servicing where required 5.3 Clean vehicles where required 5.4 Maintain workplace records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB210 Work effectively in the arboriculture industry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed working in the arboriculture industry, following instructions from supervisor and meeting industry standards. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- identifying key industry sectors and occupations in arboriculture industry
- recognising and using tools and equipment common in arboriculture industry
- recognising and using common names for trees common in the area and their physiology and growth habits
- recognising and locating trees on streets using maps
- describing arboriculture-specific risks
- describing plant attributes, specific handling and growth requirements of trees
- recognising the benefits of trees and values of those benefits
- recognising risk of harm to self and others from dust, toxic plant parts, fungi, insects, animals and other substances
- interpreting written or verbal work instructions and clarifying inconsistencies with supervisor
- identifying deadlines and planning priorities with supervisor
- reporting variations and difficulties to supervisor
- undertaking own work, responsibilities and duties
- applying work health and safety requirements in the context of own work
- working within team and work environment in accordance with low risk work practices
- following organisation's workplace procedures, site standards and requirements
- demonstrating a positive attitude to cooperation within workplace
- identifying workplace hazards and report to supervisor
- selecting, wearing and maintaining personal protective equipment (PPE) suitable for work locations and conditions
- selecting PPE appropriate to noise levels

- preparing tools and equipment prior to use and check for faults
- using low risk operating procedures for a variety of equipment and tools in arboriculture
- implementing requirements and issues with working in various weather conditions
- tagging defective equipment and report faults to supervisor
- checking tools and equipment for bluntness and sharpen if required
- checking guards are fitted, securely attached and functioning where applicable
- moving equipment and materials safely using appropriate manual handling methods
- carrying out basic mechanical fault finding and basic tests on machinery and equipment
- testing safety and emergency shutoff devices
- working safely around power sources, services and assets
- communicating with work team during operations using voice, hand and whistle signals
- tying, dressing, setting and finishing arborist knots
- assisting with traffic management around worksite
- assisting in emergency and rescue situations
- confirming first aid and emergency personnel, equipment and procedures
- managing ropes and other objects in the work zone
- monitoring the movement and whereabouts of other workers
- maintaining and monitoring safety and security of equipment while on-site
- recycling or disposing of waste materials
- cleaning and storing tools and equipment and carry out basic servicing where required
- clean vehicles where required
- maintaining workplace records.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- key industry sectors and occupations in arboriculture industry
- tools and equipment common in arboriculture industry
- common names for trees common in the area and their physiology and growth habits
- tree recognition
- methods of locating trees on streets using maps
- arboriculture-specific risks
- plant attributes, specific handling and growth requirements of trees
- benefits of trees and values of those benefits
- risk of harm to self and others from dust, toxic plant parts, fungi, insects, animals and other substances
- interpretation written or verbal work instructions
- clarification of inconsistencies
- deadlines and planning priorities
- variations and difficulties
- work responsibilities and duties
- work health and safety in the context of own work

- teamwork and work environment in accordance with low risk work practices
- organisation's workplace procedures, site standards and requirements
- importance of drug and alcohol free worksites
- sustainability practices
- hygiene and biosecurity practices
- identification of workplace hazards
- methods of reporting to supervisors
- selection, wearing and maintenance of PPE suitable for work locations and conditions
- selecting PPE appropriate to noise levels
- preparation and fault-checking of tools and equipment prior to use
- low risk operating procedures for a variety of equipment and tools in arboriculture
- requirements and issues of working in various weather conditions
- tagging defective equipment
- checking tools and equipment for bluntness
- sharpen tools and equipment
- checking guards to ensure they are fitted, securely attached and functioning
- appropriate manual handling methods for moving equipment and materials safely
- basic mechanical fault finding and basic tests on machinery and equipment
- safety and emergency shutoff device testing
- safety around power sources, services and assets
- work team communications during operations
- voice, hand and whistle signals
- tying, dressing, setting and finishing arborist knots
- traffic management around worksite
- emergency and rescue situations
- first aid and emergency personnel, equipment and procedures
- rope management and management of other objects in the work zone
- methods of monitoring the movement and whereabouts of other workers
- safety and security of equipment while on-site
- recycling or disposing of waste materials
- cleaning and storing tools and equipment
- basic servicing of tools and equipment
- vehicle cleaning
- maintenance of workplace records.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - sharpening equipment
 - static and dynamic rope kit
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - rescue kit
 - traffic management kit
 - signage - work zone
 - tree and tree samples
- materials:
 - work effectiveness form
 - tree recognition form
 - tree maintenance form
 - hazard identification and risk control form
 - equipment and PPE check form
 - knot identification form
 - emergency preparation form
 - work communications form
 - work site operations form
 - work records form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB301 Implement a tree maintenance program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a tree maintenance program. It also describes the skills and knowledge required to apply a range of tree maintenance techniques; and monitor and review the maintenance program over the course of a year.

The work requires application of extensive arboricultural knowledge and a broad range of arboricultural skills. This unit applies to individuals who have a range of skills to select and apply a specialised range of methods, tools, equipment and information to complete routine activities and provide and transmit solutions to predictable and sometimes unpredictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

AHCCHM303 Prepare and apply chemicals

AHCCHM304 Transport, handle and store chemicals

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Undertake site assessments and collect specimens	1.1 Determine location of above-and-below-ground services 1.2 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.3 Perform site assessment to identify conditions which may impact upon the health of trees on site 1.4 Recognise stress inducing factors in accordance with characteristics of species 1.5 Recognise a wide range of common diseases, pests and nutritional deficiencies in trees 1.6 Recognise abiotic issues affecting health of trees 1.7 Collect specimens of stressed material for testing 1.8 Record and report results of site assessment and tests 1.9 Research health characteristics of tree species
2. Prepare treatment program	2.1 Access and read treatment program and confirm activities with management 2.2 Select appropriate treatment methods 2.3 Select, prepare, and carry out pre-operational and safety checks, on tools, equipment and machinery 2.4 Select and use personal protective equipment 2.5 Identify environmental implications of undertaking treatment program, assess likely outcomes and take appropriate action 2.6 Determine annual maintenance requirements for trees 2.7 Contribute to preparing a comprehensive full-year maintenance program 2.8 Record and implement work health, safety, site, environmental and traffic control measures
3. Undertake treatment program	3.1 Prepare and use treatment equipment 3.2 Apply physical or chemical treatments with due regard for environmental implications 3.3 Maintain growing environment in accordance with species needs 3.4 Monitor and review maintenance program over the course of a season of one year
4. Complete treatment program activities	4.1 Dispose of infected plant material and chemical waste appropriately 4.2 Sterilise equipment

Element	Performance criteria
	4.3 Clean and store personal protective equipment 4.4 Follow up physical or chemical treatments to ensure effectiveness 4.5 Determine timetables for follow up treatments and communicate them to work team 4.6 Maintain records and document the report for that year

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCARB301A Implement a tree maintenance program

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB301 Implement a tree maintenance program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed applying physical and chemical treatments to a range of trees in accordance with a full one-year treatment program. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- performing a site assessment to identify conditions which may impact upon the health of trees on site
- recognising stress inducing factors in accordance with characteristics of species
- recognising a wide range of common diseases, pests and nutritional deficiencies in trees
- assessing abiotic issues affecting health of trees, or impact on growth
- researching species characteristics on tree health
- collecting specimens of stressed material
- recording and report results of site assessment and tests
- accessing and read treatment program and confirm activities with management
- selecting, using and maintaining suitable personal protective equipment
- selecting appropriate treatment methods and equipment
- identifying environmental implications of undertaking treatment program,
- assessing likely outcomes of treatment programs and taking appropriate action
- determining annual maintenance requirements for trees
- contributing to preparation of a comprehensive full-year maintenance program
- recording and implementing work health, safety, site, environmental and traffic control measures
- preparing and using equipment
- applying physical or chemical treatments with due regard for environmental implications
- maintaining growing environment in accordance with species needs

- monitoring and reviewing maintenance program over season of one year
- disposing of infected plant material and chemical waste appropriately
- sterilising equipment
- following up physical or chemical treatments to ensure effectiveness
- determining timetables for follow up treatments and communicating to work team
- maintaining records and documenting a report for that year
- use of appropriate treatment methods and equipment
- communicating within the work team
- complying with relevant Australian Standards
- use of industry standard terminology to describe arboriculture and work environment
- applying work health and safety requirements in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- site-specific risk assessment methods
- treatments and treatment methods commonly used on trees
- comprehensive full-year maintenance programs
- recognition of a wide range of common diseases, pests and nutritional deficiencies in trees
- the abiotic issues that could affect the health of tree species
- methods of recording, storing and processing data
- how to interpret a treatment program
- the appropriate personal protective equipment
- methods of collecting and storing specimens for identification
- methods of testing collected specimens of stressed material
- worksite traffic control
- stress inducing factors for a variety of tree species
- methods for treating tree pests and diseases
- methods of analysing nutritional status of trees
- health characteristics of tree species.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - sprayers/application equipment
 - measuring and weighing equipment
 - spill kit
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - traffic management kit
 - signage - chemical use
 - signage - work zone
 - trees
- materials:
 - tree inspection form
 - tree maintenance form
 - site assessment form
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form
 - chemical and treatment application form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB302 Inspect trees for access and work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to inspect a tree from the ground for the selection of access and tree work methods.

This unit applies to individuals who have a range of skills to select and apply a specialised range of methods, tools, materials and information to complete routine activities and provide and transmit solutions to predictable and sometimes unpredictable problems. Discretion and judgement is required. The work requires the application of extensive arboricultural knowledge. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states & territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

AHCARB313 Identify trees

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare tree inspection requirements	1.1 Prepare forms for recording inspection 1.2 Determine the scope of tree works required in consultation with client and in accordance with stakeholder needs and local regulations 1.3 Determine location of above-and-below-ground services 1.4 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.5 Confirm first aid and emergency personnel, equipment and procedures 1.6 Select, prepare, and carry out pre-operational and safety checks, on tools, equipment and machinery 1.7 Select and use personal protective equipment 1.8 Record and implement work health, safety, site, environmental and traffic control measures
2. Inspect tree	2.1 Record tree type, location and dimensions 2.2 Inspect tree for tree access and tree work methods 2.3 Inspect branches for health, vitality and integrity of attachment 2.4 Inspect tree structure for defects, signs and symptoms of disease, insects and other fauna
3. Determine method of access and work method	3.1 Record findings on hazard identification form 3.2 Undertake load testing, probe cavities and test hollows by sounding if required 3.3 Record result when tree condition requires modified tree access or work method 3.4 Select appropriate method of access and tree work method 3.5 Assess risk of selected method of access and tree work method 3.6 Conduct meeting to communicate and confirm selected method of access and tree work method 3.7 Record work site confirmation of method of access, work method and appropriate risk controls
4. Record result and advise client	4.1 Record result when tree access or tree work method is inappropriate 4.2 Advise client and stakeholders of requirements for further advice or testing 4.3 Seek further advice from consulting arborist or access specialist 4.4 Complete inspection form and submit to client and stakeholders

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCARB302A Conduct tree inspections.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB302 Inspect trees for access and work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed inspecting a range of trees, compiling a complete record of work site and tree risk assessment data to determine the appropriate access method and work method. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- preparing forms for recording inspection
- determining the scope of works
- determining stakeholder needs and local regulations
- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- selecting, preparing, and carrying out pre-operational and safety checks, on tools, equipment and machinery
- selecting and using personal protective equipment
- recording and implementing work health, safety, site, environmental and traffic control measures
- recording tree type, location and dimensions
- inspecting for tree access and tree work methods
- inspecting branches for health, vitality and integrity of attachment
- inspecting tree for defects, signs and symptoms of disease, insects and other fauna
- tree structure and structural defects
- recording findings on hazard identification form
- undertaking load testing
- probing cavities and testing hollows by sounding
- recording result when tree condition requires modified work methods

- selecting appropriate method of access and tree work method
- assessing risk of selected method of access and tree work method
- conducting a meeting and confirming selected method of access and tree work method
- recording work site confirmation of method of access, work method and appropriate risk controls
- recording result when tree access or work is inappropriate
- advising client and stakeholders of requirements for further advice or testing
- seeking further advice from consulting arborist or access specialist
- completing inspection forms and submitting to client and stakeholders.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- tree inspection method/s and principles
- preparation of forms for inspection, hazard identification, environmental conditions and risk control
- determination of location of above-and-below-ground services
- site-specific risk assessments
- pre-operational and safety checks, on tools, equipment and machinery
- personal protective equipment
- work health, safety, site, environmental and traffic control measures
- methods of determining tree types, location and dimensions
- tree access and tree work methods
- branch health, vitality and integrity of attachment
- defects, signs and symptoms of disease, insects and other fauna of trees
- methods of load testing, cavity probing and hollows testing
- methods of tree access and tree work
- modified tree access or work methods
- inappropriate methods of tree access and tree work
- requirements for further advice or testing
- methods of seeking further advice from consulting arborists or access specialists
- completion and submission of forms.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - traffic management kit
 - signage - work zone
 - trees
- materials:
 - tree inspection form
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB303 Perform pruning operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to perform corrective and remedial pruning operations. The application of this unit of competency can occur on the ground or in aerial locations, once the candidate is situated in position to perform work. This unit of competency is independent of where the pruning occurs and the method of accessing the work location.

This unit applies to individuals who have a range of skills to select and apply a specialised range of methods, tools, materials and information to complete routine activities and provide and transmit solutions to predictable and sometimes unpredictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable current versions of Australian Standards such as AS 4373 Pruning of amenity trees.

Pre-requisite Unit

FPICOT2237A Maintain chainsaws

And

FWPCOT2239A Trim and cut felled trees

Or

FPICOT3238B Operate a pole saw

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for pruning operations	1.1 Determine location of above-and-below-ground services 1.2 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.3 Receive pruning instructions from supervisor and clarify prior to undertaking work 1.4 Confirm first aid, rescue personnel, equipment and procedures 1.5 Communicate with work team during operations using voice, hand and whistle signals
2. Determine requirements of pruning work	2.1 Identify and confirm location of tree to be pruned 2.2 Inspect trees for access and work 2.3 Determine type, extent and limit of pruning work in accordance with specifications, scope of works and client brief 2.4 Maintain awareness of power line proximity, safe approach distances and clearances
3. Select and prepare tools and equipment	3.1 Select appropriate tools and equipment for pruning 3.2 Consider access and impact value of secateurs, handsaws, chainsaws and polesaws 3.3 Carry out pre-operational and safety checks on pruning tools and equipment 3.4 Select and use personal protective equipment 3.5 Sterilise pruning equipment in between individual tree work in accordance with hygiene and biosecurity considerations 3.6 Record and implement work health, safety, site, environmental and traffic control measures
4. Determine tree part to be removed	4.1 Investigate stem bark ridge, old cuts, dead branches and occluded and occluding branches 4.2 Determine separate parts to be a branch or co-dominant stem in relation to tree anatomy and branch attachment 4.3 Determine the part requiring removal to be a branch or co-dominant stem to select the appropriate pruning procedure
5. Carry out branch pruning operations	5.1 Use sharp pruning tools to make clean cuts 5.2 Operate chainsaws and polesaws as required to implement pruning cuts to the standards required by AS 4373 5.3 Apply compartmentalisation of decay in tree (CODIT) principles 5.4 Pre-cut or undercut branches to avoid splitting or tearing

Element	Performance criteria
	5.5 Remove remaining stub with final cut 5.6 Observe final cut procedure for branch removal cutting as close as possible to the branch collar without cutting into the branch collar or leaving a protruding stub. 5.7 Use branch bark ridge to determine angle of cut when removing a branch in the absence of a visible collar 5.8 Ensure bark at edge of all branch pruning cuts remains firmly attached
6. Carry out reduction pruning	6.1 Use branch bark ridge as guide to angle and position of final cut when making reduction cuts 6.2 Ensure lateral branch to which the final cut is made, is at least one third of diameter of branch being reduced at point of final cut.
7. Carry out stem pruning operations	7.1 Use stem bark ridge to determine angle of cut when removing a co-dominant stem 7.2 Be guided to position and angle of final cut, by positions and angles of joins between tissue of declining or dead stems and those of healthy stems elsewhere in tree 7.3 Ensure bark at edge of all stem pruning cuts remains firmly attached
8. Improve pruning quality	8.1 Inspect past pruning cuts to determine tree response 8.2 Use tree response to assess the quality of past pruning cuts 8.3 Seek feedback on pruning from other arborists 8.4 Identify and rectify incorrect pruning cuts 8.5 Modify future pruning cuts based on tree responses and feedback from others
9. Complete pruning operations	9.1 Drop pruning material into designated drop zone 9.2 Clean, maintain and store tools and equipment 9.3 Collect and dispose of, or recycle pruned material in a manner that causes minimal environmental damage 9.4 Maintain workplace records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCARB303A Implement a tree pruning program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB303 Perform pruning operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must perform the remedial and corrective pruning operations involved in branch pruning, reduction pruning and stem pruning. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- receiving pruning instructions from supervisor and clarifying prior to undertaking work
- communicating with work team during operations using voice, hand and whistle signals
- confirming first aid, rescue equipment and rescue procedures applicable to tree work
- identifying location of tree to be pruned
- inspecting trees for access and work
- determining type extent and limit of pruning work in accordance with the specifications, scope of works or client brief
- maintaining awareness of power line proximity, safe approach distances and clearances
- selecting appropriate tools and equipment for pruning
- considering access and impact value of secateurs, handsaws, chainsaws and polesaws
- selecting, preparing, and carrying out pre-operational and safety checks, on tools, equipment and machinery
- selecting and using personal protective equipment
- sterilising pruning equipment in between work on individual trees in accordance with hygiene and biosecurity considerations
- recording and implementing work health, safety, site, environmental and traffic control measures
- investigating stem bark ridge, old cuts, dead branches and occluded and occluding branches

- determining the separate parts to be a branch or co-dominant stem in relation to the tree anatomy and branch attachment
- determining the part requiring removal to be a branch or a co-dominant stem
- using sharp pruning tools to make clean cuts
- operating chainsaws and polesaws
- implementing pruning cuts to the standards required by AS 4373
- applying compartmentalisation of decay in tree (CODIT) principles
- pre-cutting or undercutting branches to avoid splitting or tearing
- removing remaining stub with final cut
- observing final cut procedure for branch removal for cutting as close as possible to the branch collar without cutting into the branch collar or leaving a protruding stub.
- using branch bark ridge to determine angle of cut when removing a branch in the absence of a visible collar
- ensuring bark at edge of all branch pruning cuts remains firmly attached
- using the branch bark ridge as a guide to the angle and position of the final cut when making reduction cuts
- ensuring the lateral branch to which the final cut is made, is at least one third of the diameter of the branch being reduced at the point of the final cut.
- using the stem bark ridge to determine the angle of cut when removing a co-dominant stem
- being guided to the position and angle of the final cut, by positions and angles of joints between tissue of declining or dead stems and those of healthy stems elsewhere in tree
- ensuring bark at edge of all stem pruning cuts remains firmly attached
- inspecting past pruning cuts to determine tree response
- using tree response to assess the quality of past pruning cuts
- seeking feedback on pruning from other arborists
- identifying and rectifying incorrect pruning cuts
- modifying future pruning cuts based on tree responses and feedback from others
- dropping pruning material into designated drop zone
- cleaning, maintaining and storing tools and equipment
- collecting and disposing of, or recycling pruned material in a manner that causes minimal environmental damage
- maintaining workplace records
- use of industry-standard terminology to describe arboriculture and the work environment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- risk assessment
- visual tree assessment
- tree health, growth habit, structure, stability and growing environment
- first aid
- operation of chainsaws and polesaws

- tree and branch anatomy and attachments: lateral branch collars, branch bark ridges, stem bark ridges
- pruning cuts to the standards required by AS 4373
- reduction cuts
- tree response to pruning
- correct and incorrect pruning cuts
- rectifying cuts
- pruning hygiene
- biosecurity
- communications using voice, hand and whistle signals
- power line proximity, safe approach distances and clearances
- rescue personnel, equipment and procedures applicable to tree work
- interpreting specifications
- maintaining workplace records
- disposal of plant debris in environmentally aware and sensitive manner
- work health and safety procedures for pruning operations.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment; however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - chainsaws - climbing saw
 - pole saw
 - pruning handsaws
 - high decibel whistle
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - traffic management kit
 - signage - work zone
 - trees and tree parts
- materials:
 - pruning operations form
 - hazard identification and risk control form

- equipment and PPE check form
- emergency preparation form
- work communications form
- work site operations form
- work records form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB305 Dismantle trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to dismantle trees in confined spaces and in difficult or hazardous circumstances.

This unit applies to individuals who have a range of skills to select and apply a specialised range of methods, tools, materials and information to complete routine activities and provide and transmit solutions to predictable and sometimes unpredictable problems. Discretion and judgement is required. The work requires the application of extensive arboricultural knowledge. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

AHCARB310 Perform aerial rigging*

*AHCARB207 Perform ground based rigging***

AHCARB311 Tie, dress, set and finish arborist knots

AND

*AHCARB307 Use advanced climbing techniques***

*AHCARB312 Use standard climbing techniques to access trees****

AHCARB311 Tie, dress, set and finish arborist knots

OR

TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more)

FPIFGM3212 Fall trees manually (intermediate)

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for tree removal	1.1 Determine access to site and gain approval by owner or site management 1.2 Confirm site preparations, including notification of local residents and authorities where necessary 1.3 Determine location of above-and-below-ground services 1.4 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.5 Protect, relocate and secure assets, property and vegetation related to work zone activities from potential damage during tree removal 1.6 Inspect trees to determine dimensions, appropriate removal methods and to confirm appropriateness of selected risk controls 1.7 Determine drop zone and communicate to all personnel 1.8 Confirm first aid, rescue personnel, equipment and procedures applicable to tree work 1.9 Carry out pre-operational and safety checks on tools, equipment and machinery 1.10 Select and use personal protective equipment 1.11 Record and implement work health, safety, site, environmental and traffic control measures
2. Implement dismantling of trees	2.1 Communicate with work team during operations, as required, verbally, using hand signals and whistles 2.2 Calculate mass of tree section, balance of load and confirm mass does not exceed safe working limit of equipment 2.3 Use dismantling techniques to ensure branches and trunk sections fall or are lowered safely into determined drop zone, with no damage to property and equipment or injury to personnel 2.4 Use and control friction devices as required 2.5 Dismantle branches and trunk sections using the 'cut and drop' method, and cut and lower by ropes and other lowering devices 2.6 Use directional felling techniques to ensure trunk of dismantled tree falls safely into determined drop zone with no damage to property and equipment or injury to personnel 2.7 Use and control elevated work platforms as required

Element	Performance criteria
3. Complete tree removal	3.1 Reduce dismantled tree sections to manoeuvrable lengths 3.2 Remove plant material and debris from site 3.3 Clean and check tools, equipment and machinery, and store 3.4 lean and store personal protective equipment 3.5 Record completion of tree removal and report to owner or site manager

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCARB305A Remove trees in confined spaces.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB305 Dismantle trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed removing a tree in a confined space using directional felling and removing a tree in a confined space using a dismantling process. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- inspecting trees to determine appropriate removal methods
- confirming appropriateness of selected risk controls
- determining access to site and gaining approval by owner or site management
- confirming site preparations, including notification of local residents and authorities where necessary
- recording and implementing work health, safety, site, environmental and traffic control measures
- determining drop zone and communicate to all personnel
- protecting, relocating and securing assets, property and vegetation related to work zone activities from potential damage during tree removal
- selecting, preparing, checking and using tools, equipment and machinery
- selecting and using personal protective equipment
- selecting and using safety equipment
- calculating mass of tree section
- confirming mass of tree section does not exceed the safe working limit of equipment
- dismantling branches and trunk sections using the 'cut and drop' method, and
- cutting and lowering sections by ropes and other lowering devices
- using dismantling techniques to ensure branches and trunk sections fall or are lowered safely into determined drop zone, with no damage to property and equipment or injury to personnel

- using directional felling techniques to ensure trunk of dismantled tree falls safely into determined drop zone with no damage to property and equipment or injury to personnel
- using and controlling friction devices where required
- using and controlling elevated work platforms as required
- reducing dismantled tree section to manoeuvrable lengths without injury to operator
- removing plant material and debris from site
- cleaning and checking tools, equipment and machinery, replacing if faulty or worn, and storing
- recording completion of tree removal and reporting to owner or site manager
- use of advanced rigging techniques
- calculating tree dimensions, mass of tree section and balance of load
- erecting signage, barriers, warning devices and traffic management equipment
- coordinating and sequencing work team activities
- use of industry standard terminology to describe arboriculture and work environment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- site and tree hazards that might be encountered
- selection of low risk tree removal methods
- advanced climbing techniques and rope handling
- selecting and tying, dressing, setting and finishing arborist knots
- operation of lowering devices where required
- types of lowering devices that might be required, including friction devices, and methods for using them
- how to estimate density of tree sections
- the impact of force, breaking strength, safety factors and cycles to failure
- how to identify and evaluate structural defects in trees
- how to determine the density of tree sections
- safe working limits on all relevant rigging and lowering equipment
- methods of estimating mass and balance of load
- first aid and rescue personnel, equipment and procedures applicable to tree work
- methods of minimising environmental impact
- legislation and local regulations governing tree removal.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - rigging equipment
 - single rope technique (SRT) climbing kit
 - static and dynamic rope kit
 - harness
 - lowering and friction devices
 - gaffs/spurs
 - high decibel whistle
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - rescue kit
 - traffic management kit
 - signage – work zone
 - trees
- materials:
 - dismantling operations form
 - chainsaw operations form
 - pruning operations form
 - knot identification form
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form
 - rescue form - aerial
 - work communications form
 - work site operations form
 - work records form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB306 Undertake aerial rescue

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to perform an aerial rescue where an injured or unconscious person is safely brought to the ground from a tree or elevated work platform (EWP).

The unit applies to Arborists preparing and planning for the coordination and execution of rescue operations and the implementation of safety and first aid requirements.

Aerial rescue is likely to be undertaken in emergency situations with little or no supervision. It involves working closely with other members of a team to ensure the safety of all personnel and the public during a rescue operation. This unit applies to individuals who have a range of skills to select and apply a specialised range of methods, tools, materials and information to complete routine activities and provide and transmit solutions to predictable and sometimes unpredictable problems.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

HLTAID003 Provide first aid

AHCARB310 Perform aerial rigging*

*AHCARB207 Perform ground based rigging***

AHCARB311 Tie, dress, set and finish arborist knots

AND

*AHCARB307 Use advanced climbing techniques***

*AHCARB312 Use standard climbing techniques to access trees****

AHCARB311 Tie, dress, set and finish arborist knots

OR

*TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more)***Unit Sector**

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan for aerial rescue	1.1 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.2 Confirm emergency communication system is working 1.3 Confirm emergency services contact numbers are documented 1.4 Select, prepare and check first aid equipment and rescue kit 1.5 Position rescue and first aid equipment for easy access 1.6 Clarify own role in rescue situations 1.7 Confirm first aid, rescue personnel, equipment and rescue plan procedures with work team prior to undertaking work 1.8 Select and use personal protective equipment 1.9 Communicate with work team during operations using voice, hand and whistle signals
2. Assess and respond to an aerial emergency situation	2.1 Attempt communication with casualty 2.2 Activate emergency plan and request assistance from work team and public in accordance with rescue plan 2.3 Identify hazards associated with rescue, assess risks and implement suitable controls 2.4 Determine presence of live electrical wires or apparatus that will interfere with ability to access casualty and take appropriate action 2.5 Apply 'Safe Approach Distance' measures to live electrical situations 2.6 Use appropriate access equipment to carry out rescue in accordance with rescue plan 2.7 Maintain communication with casualty
3. Assess nature of injury	3.1 Secure rescuer safely

Element	Performance criteria
	3.2 Secure casualty 3.3 Assess injuries to determine whether or not to move casualty based on first aid procedures and risk assessment 3.4 Apply first aid that can be performed above ground, as required 3.5 Support, but do not move, a casualty with possible neck or spinal injuries and await expert medical treatment 3.6 Maintain communications with ground crew
4. Lower casualty to ground	4.1 Inform casualty of lowering procedure 4.2 Prepare casualty for descent in accordance with first aid, rescue plan and risk assessments 4.3 Descend tree safely in a controlled manner 4.4 Lower casualty safely to ground with support of ground crew
5. Complete rescue operations	5.1 Apply first aid on ground as needed 5.2 Obtain emergency assistance as required 5.3 Isolate equipment involved in accident for potential investigation and prevent reuse until checked 5.4 Remove all equipment in a controlled manner 5.5 Clean and store equipment 5.6 Clean and store personal protective equipment 5.7 Maintain records of aerial rescue in appropriate format

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCARB306A Undertake aerial rescue.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB306 Undertake aerial rescue

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed planning and implementing a rescue operation and undertaking an aerial rescue. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- confirming emergency communication system is working
- confirming emergency services contact numbers are documented
- selecting, preparing and checking first aid equipment and rescue kit
- positioning rescue and first aid equipment for easy access
- clarifying own role in rescue situations
- confirming first aid, rescue personnel, equipment and rescue plan procedures with work team prior to undertaking work
- selecting and using personal protective equipment
- communicating with work team during operations using voice, hand and whistle signals
- attempting communication with casualty
- activating emergency plan and requesting assistance from work team and public in accordance with rescue plan
- identifying hazards associated with rescue, assessing risks and implementing suitable controls
- determining presence of live electrical wires or apparatus that will interfere with ability to access casualty and take appropriate action
- applying 'safe approach distance' measures to live electrical situations
- using appropriate access equipment to carry out rescue in accordance with rescue plan
- maintaining communication with casualty
- securing rescuer safely
- securing casualty

- assessing injuries to determine whether or not to move casualty based on first aid procedures and risk assessment
- applying first aid that can be performed above ground, as required
- supporting, but do not move, a casualty with possible neck or spinal injuries and awaiting expert medical treatment
- maintaining communications with ground crew
- informing casualty of lowering procedure
- preparing casualty for descent in accordance with first aid, rescue plan and risk assessments
- descending tree safely in a controlled manner
- lowering casualty safely to ground with support of ground crew
- applying first aid on ground as needed
- obtaining emergency assistance as required
- isolating equipment involved in accident for potential investigation and prevent reuse until checked
- removing all equipment in a controlled manner
- cleaning and storing equipment
- cleaning and storing personal protective equipment
- maintaining records of aerial rescue in appropriate format
- using industry standard terminology to describe aerial rescues and the work environment.

Knowledge Evidence

candidate must demonstrate knowledge of:

- emergency procedures to assist in ground-based rescues of EWP and climbing workers
- hazard identification methods
- risk assessment systems
- Safe Approach Distances
- recognition of live electrical wires or apparatus
- electrical wires and apparatus safety
- first aid procedures
- contents of a first aid kit
- use of a first aid kit
- emergency services communication systems
- emergency services contact numbers
- emergency plans
- appropriate placement of rescue equipment
- use of rescue kits
- rescue personnel, equipment and rescue plan procedures
- how to control risk to rescuer, victim and others
- types of reporting required after rescue
- personal protective equipment
- how to deal with an emergency

- lowering mechanisms for an aerial rescue
- work health and safety records with regards to incident reporting.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - rescue kit
 - rescue dummy
 - emergency communication system
 - rigging equipment
 - single rope technique (SRT) climbing kit
 - static and dynamic rope kit
 - harnesses
 - lowering and friction devices
 - high decibel whistle
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - traffic management kit
 - signage – work zone
 - trees
- materials:
 - rescue form - aerial
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form
 - knot identification form
 - work communications form
 - work site operations form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB307 Use advanced climbing techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to climb trees with ropes, harnesses and specialist equipment using advanced techniques for the purpose of mobility around the required sections of trees for work positioning.

This unit applies to individuals who have a range of cognitive, technical and communication skills to select and apply a specialised range of methods, ropes, equipment and information to complete routine activities and provide and transmit solutions to predictable and sometimes unpredictable problems. Discretion and judgement is required. The work requires the application of extensive arboricultural knowledge. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

AHCARB312 Use standard climbing techniques to access trees*

AHCARB311 Tie, dress, set and finish arborist knots

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare site and inspect equipment	1.1 Determine appropriate method for accessing tree – climbing or using an elevated work platform (EWP) – through discussion with work team 1.2 Determine location of above-and-below-ground services 1.3 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.4 Confirm first aid and rescue personnel, equipment and procedures 1.5 Ensure work team member present, capable, willing and equipped to assist or perform aerial rescue operations 1.6 Prepare and carry out pre-operational and safety checks, on ropes, harnesses, tools and equipment 1.7 Select and use personal protective equipment 1.8 Record and implement work health, safety, site, environmental and traffic control measures
2. Select climbing equipment	2.1 Select harness and appropriate equipment for climbing 2.2 Inspect tree to determine low risk access route through discussion with work team and seek feedback 2.3 Estimate tree height and load in relation to safe working limits of ropes and equipment 2.4 Determine the hold, release and grip attributes of rope 2.5 Select and use static and dynamic rope as required 2.6 Select and use triple locking carabiners 2.7 Determine limits, relative advantages and disadvantages of friction hitches
3. Prepare to access tree	3.1 Tie, dress, set and finish climbing knots and hitches 3.2 Communicate with work team during operations using voice, hand and whistle signals 3.3 Maintain awareness of power line safe approach distances and vegetation clearances 3.4 Select low risk anchor points in accordance with strength, suitability requirements and branch weight
4. Prepare climbing spurs and gaffs for dismantling operations	4.1 Prepare climbing spurs and gaffs for dismantling operations 4.2 Check all components of climbing spurs for defects and wear 4.3 Check gaff tip profile for correct dimensions using gaff gauge 4.4 Sharpen gaff tip cutting edge with file at defined angle using gaff gauge

Element	Performance criteria
	4.5 Adjust climbing spurs to provide correct operator fit 4.6 Access and perform dismantling work using climbing spurs 4.7 Maintain separation of spurs 4.8 Maintain clearance distance between spurs and ropes
5. Access and ascend tree	5.1 Access and ascend tree using low risk access route with harness and lanyard 5.2 Ascend using single rope, double rope and selected friction hitch as required 5.3 Ascend using uni-ascenders, foot and hand ascenders, and other ascension devices as required 5.4 Use micrograbs, grigris and micro-pulleys as required for mobility and work positioning 5.5 Demonstrate ability to carry out change-overs as required 5.6 Set up redirects and belays using slings and anchors as required 5.7 Select multiple lines to climb trees and tree parts as required 5.8 Select multiple lines to perform tree operations as required
6. Descend from tree	6.1 Descend tree in a controlled manner 6.2 Remove all access equipment in a controlled manner 6.3 Check, clean and store access equipment 6.4 Clean and store personal protective equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCARB307A Undertake complex tree climbing.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB307 Use advanced climbing techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed ascending and descending trees using advanced tree climbing practices.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts. The candidate must provide evidence for and demonstrate:

- appropriate method for accessing tree – climbing or using an EWP – through discussion with work team
- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- confirming first aid and rescue personnel, equipment and procedures
- ensuring work team member present, capable, willing and equipped to assist or perform aerial rescue operations
- preparing and carrying out pre-operational and safety checks, on ropes, harnesses, tools and equipment
- selecting and using personal protective equipment and safety equipment
- recording and implementing work health, safety, site, environmental and traffic control measures
- selecting harness and appropriate equipment for climbing
- inspecting tree to determine low risk access route through discussion with work team and seek feedback
- estimating tree height and load in relation to safe working limits of ropes and equipment
- determining the hold, release and grip attributes of rope
- selecting and using static and dynamic rope as required
- selecting and using triple locking carabiners

- determine limits, relative advantages and disadvantages of friction hitches including: Tautline, Blake's, Prussik, Klemheist, Valdetain, French Prussik and specialised variations
- tying, dressing, setting and finishing climbing knots and hitches
- communicating with work team during operations using voice, hand and whistle signals
- maintaining awareness of power line safe approach distances and vegetation clearances
- selecting low risk anchor points in accordance with strength, suitability requirements and branch weight
- accessing and ascending tree using low risk access route with harness and lanyard
- ascending using single rope, double rope and selected friction hitch as required
- ascending using uni-ascenders and foot ascenders as required
- using micrograbs, grigris and micro-pulleys as required for access and tree operations
- demonstrating ability to carry out change-overs
- setting up redirects and belays using slings and anchors
- selecting multiple lines to access trees and tree parts
- selecting multiple lines to perform tree operations
- descending tree in a controlled manner
- removing all access equipment in a controlled manner
- cleaning and storing climbing equipment
- cleaning and storing personal protective equipment
- use of industry standard-terminology to describe climbing and the work environment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- appropriate method of tree access
- selection of climbing or EWP access
- determination of location of above-and-below-ground services
- site-specific risk assessment
- first aid personnel, equipment and procedures
- rescue personnel, equipment and procedures
- work health, safety, site, environmental and traffic control measures
- pre-operational and safety checks, on ropes, harnesses, tools and equipment
- personal protective equipment
- types of climbing ropes
- dynamic and static ropes
- rope characteristics
- uses of climbing ropes
- safe working limits of ropes
- safe working limits of equipment
- defects in ropes, tools and equipment
- climbing harnesses and lanyards

- climbing equipment
- triple action carabiners
- friction hitches including:
 - Tautline, Blake's, Prussik, Klemheist, Valdetain, French Prussik and specialised variations
- arborist knots
- tying knots
- dressing knots
- setting knots
- checking knots
- finishing knots
- industry voice, hand and whistle signals
- low risk access routes
- estimation of tree height
- estimation of load
- safe working limits
- tree access techniques and equipment
- strength and suitability requirements
- single and double rope techniques
- uni-ascenders and foot ascenders
- micrograbs, grigris, micro-pulleys
- use of climbing spikes of various lengths
- change-overs
- redirects and belays using slings and anchors
- use of multiple lines to access trees and tree parts
- advanced climbing techniques
- low risk anchor points
- maintenance of awareness of power lines
- power line safe approach distances and vegetation clearances
- controlled descent operations
- controlled removal of access equipment
- cleaning of equipment
- storage of equipment.

Assessment Conditions

It is an industry requirement that delivery of training and assessment in this unit provides for the explicit conditions of work team capability for aerial rescue operations. It is an industry requirement for competency in this unit that assessment must include a log record of two hundred (200) hours of advanced climbing.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit. Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - single rope technique (SRT) climbing kit
 - harness
 - chaps
 - climbing friction hitches
 - high decibel whistle
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - rescue kit
 - traffic management kit
 - trees
- materials:
 - climbing techniques form - advanced
 - climbing log record – advanced
 - tree inspection form
 - hazard identification and risk control form
 - equipment and PPE check form
 - knot identification form
 - work communications form
 - rescue form - aerial

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB308 Install cable and bracing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install cable and bracing hardware into the structure of a tree.

The work requires the application of extensive arboricultural knowledge. This unit applies to individuals who have a range of skills to select and apply a specialised range of methods, tools, equipment and information to complete routine activities and provide and transmit solutions to predictable and sometimes unpredictable problems.

Some discretion and judgement may be required to the extent of pruning and cable and bracing required for a particular tree. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work	1.1 Determine cable and bracing requirements from client brief 1.2 Determine materials required for installing cable and bracing 1.3 Determine location of above-and-below-ground services 1.4 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.5 Select appropriate cable and bracing tools and equipment 1.6 Select and use personal protective equipment 1.7 Confirm first aid and emergency personnel, equipment and procedures 1.8 Record and implement work health, safety, site, environmental and traffic control measures
2. Prepare trees for cable and bracing	2.1 Examine structural tree components using visual tree assessment and in accordance with Compartmentalisation of Decay in Trees (CODIT) principles in relation to tree anatomy and physiology 2.2 Examine branches to determine vitality and integrity of attachment ensuring ability to safely implement bracing 2.3 Undertake preliminary pruning in accordance with AS 4373 to aid cable and bracing installation
3. Install cable and bracing	3.1 Discuss planned approach to cable and bracing with other members of work team 3.2 Install cable and bracing 3.3 Determine the requirement for additional pruning to restore tree to its natural habit and form and sustain its growth 3.4 Check and record completed program for quality of work

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCARB308A Install cable and bracing.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB308 Install cable and bracing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed installing cable and bracing according to a pruning program.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment
- determining cable and bracing requirements from client brief
- confirming first aid and rescue procedures applicable to tree work
- examining structural tree components
- examining vitality and structural integrity of branch attachments
- identifying work health and safety hazards and assessing risk
- recording and implementing site and traffic control measures
- use of tree climbing techniques or ability to work from an elevated work platform
- installing cable and bracing
- determining requirement for additional pruning
- checking and recording completed program for quality of work
- use of industry standard terminology to describe arboriculture and work environment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the effect of pruning on tree growth, habit and form
- tree anatomy and tree physiology
- tree pruning techniques appropriate to requirements of species

- visual tree assessment
- selection of appropriate cable and bracing tools and equipment
- selection of suitable personal protective equipment
- the principles and methods of pruning (tree anatomy and physiology)
- identification of work health and safety hazards, risk assessment and risk control application
- quality of pruning work
- cable and bracing techniques appropriate to tree species
- cable and bracing theory
- Compartmentalisation of Decay in Trees (CODIT) principles
- implications of pruning cuts and the way trees respond
- sustainable growth requirements of trees
- natural habit and form of trees
- first aid and rescue personnel, equipment and procedures applicable to tree work
- local government tree protection and preservation regulations
- Australian Standard 4373–2007 relating to tree pruning.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - dynamic and static cable and bracing tools and products
 - high decibel whistle
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - traffic management kit
 - signage – work zone
 - trees
- materials:
 - cable and bracing operations form
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form

- work records form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB309 Implement a tree protection program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a tree protection program.

The work requires the application of a broad range of arboricultural and horticultural skills and knowledge. This unit applies to individuals who work under broad direction and take responsibility for their own work, including limited responsibility for the work of others. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Determine the implementation requirements of the tree protection program	1.1 Determine location of above-and-below-ground services 1.2 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.3 Identify trees to be protected, reasons for protection and types of protection methods from the tree protection plan 1.4 Assess and record the environmental impacts of the program 1.5 Identify resources required to implement the program and confirm availability with relevant personnel or suppliers 1.6 Determine, schedule and allocate implementation tasks and make allowances for contingencies 1.7 Discuss information relating to the implementation of the program with appropriate personnel
2. Make site preparations	2.1 Mark the location of protection areas on the site 2.2 Select, prepare, and carry out pre-operational and safety checks, on tools, equipment and machinery 2.3 Select and use personal protective equipment 2.4 Confirm first aid equipment and emergency procedures 2.5 Record and implement work health, safety, site, environmental and traffic control measures
3. Construct protective devices	3.1 Use tools, equipment and materials appropriate to the task 3.2 Construct or assemble tree protection devices with consideration for any needs specific to the species or individual tree 3.3 Install protection devices 3.4 Inspect completed protection devices for viability and take remedial action where necessary
4. Monitor protection program	4.1 Monitor tree health during program 4.2 Take remedial action to maintain tree health 4.3 Check protection devices periodically for their effectiveness 4.4 Report and repair broken, damaged or ineffective components 4.5 Dismantle and remove protection devices 4.6 Clean, maintain and store tools and equipment 4.7 Maintain records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCARB309A Implement a tree protection program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB309 Implement a tree protection program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed determining the protection requirements of a tree, setting out a site according to the requirements of the protection program and constructing protective devices appropriate to the needs of the tree.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- identifying trees to be protected, reasons for protection and types of protection methods
- assessing and recording environmental impacts of the program
- determining, scheduling and allocating implementation tasks
- making allowances for contingencies
- marking location of protection areas on the site
- erect safety barriers and signage to ensure public and operator safety
- carrying out pre-operational and safety checks
- recording and implementing work health, safety, site, environmental and traffic control measures
- constructing or assembling tree protection devices appropriate for needs of tree
- installing tree protection devices
- inspecting completed protection devices for viability
- monitoring tree health
- reporting and repairing broken, damaged or ineffective protection devices
- dismantling and removing protection devices
- maintaining records

- recognising healthy, stressed and damaged trees
- use of industry standard terminology to describe arboriculture and the work environment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- methods of identifying and protecting trees
- tree protection systems, types and methods of protection
- methods of marking sites
- environmental impact assessment methods
- selection, use and maintenance of suitable personal protective equipment
- application of work health safety and environmental controls
- task scheduling and contingency management
- tree health (tree physiology)
- systems for use installation of safety barriers and signage
- tree protection plans
- techniques for assembling or constructing tree protection devices suitable to the requirements of tree species
- protection requirements of tree species
- remedial actions for tree health
- first aid and rescue personnel, equipment and procedures applicable to tree work
- specifications and construction methods for installing protection devices
- environmental factors affecting trees
- principles, regulations and practices for restricting access and traffic management.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - tree protection devices/equipment
 - construction tools
 - personal protective equipment (PPE)
 - first aid and emergency kit

- traffic management kit
- signage – work zone
- trees
- materials:
 - tree maintenance form
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB310 Perform aerial rigging

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to perform aerial rigging by selecting and using appropriate equipment and methods. This work requires application of extensive arboricultural skills and knowledge, including various rigging techniques for lowering, controlling and redirecting loads during tree pruning and tree removal. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

This unit applies to individuals who have a range of skills to select and apply a specialised range of methods, tools, equipment and information to complete routine activities and provide and transmit solutions to predictable and sometimes unpredictable problems. Discretion and judgement is required. Elevated work platforms may be involved.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

AHCARB207 Perform ground based rigging*

AHCARB311 Tie, dress, set and finish arborist knots

AND

AHCARB307 Use advanced climbing techniques*

*AHCARB312 Use standard climbing techniques to access trees***

AHCARB311 Tie, dress, set and finish arborist knots

OR

TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more)

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare work site	1.1 Confirm location of worksite and location of correct tree as identified in scope of works 1.2 Obtain required site permits and licences 1.3 Determine location of above-and-below-ground services 1.4 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.5 Ensure scope of works is within capacity and limits of team and equipment 1.6 Confirm first aid and rescue personnel, equipment and procedures applicable to tree work 1.7 Inspect tree and identify structural defects in relation to tree taxonomy, anatomy and physiology 1.8 Consider impact of wind speed and direction on rigging methods 1.9 Consider 'cycles to failure' of load-bearing equipment 1.10 Select, prepare, and carry out pre-operational and safety checks, on tools, equipment and machinery 1.11 Select and use personal protective equipment 1.12 Discuss and confirm work-zone locations and areas with work team 1.13 Record and implement work health, safety, site, environmental and traffic control measures
2. Design and prepare rigging system	2.1 Determine load limit of rigging system 2.2 Consider mass and dimensions of tree part, centre of gravity, dimensions in relation to working space 2.3 Calculate load and balance 2.4 Consider breaking strength and safety factor of equipment in use 2.5 Select appropriate anchor and attachment points 2.6 Determine impact of force under normal and failure conditions and apply safety factor 2.7 Design rigging system to allow for load and impact of force 2.8 Discuss rigging system with work team 2.9 Select appropriate rigging equipment and inspect for defects

Element	Performance criteria
	2.10 Assemble, reassess and install rigging equipment
3. Perform rigging operations	3.1 Communicate with work team during operations using voice, hand and whistle signals 3.2 Attach rigging and tie, dress, set and finish arborist knots 3.3 Test tensioned load 3.4 Identify problems, unsafe rigging practices and provide alternative rigging solutions 3.5 Monitor and adjust rigging system, taking into account environmental conditions 3.6 Control load and raise, lower or redirect as required and in a manner appropriate to worksite 3.7 Perform tip lowering, butt lowering, horizontal lowering and lifting as required 3.8 Operate lowering and friction devices as required 3.9 Match load frequency and size to processing capacity of ground crew 3.10 Process plant material and debris during rigging operations 3.11 Maintain effective communication with work team during rigging process
4. Complete tree rigging operations	4.1 Check proper completion of rigging operations 4.2 Retrieve appropriate components of rigging system in a controlled manner 4.3 Clean and remove plant material and debris from site 4.4 Clean and check tools, equipment and machinery, and store 4.5 Clean and store personal protective equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCARB310A Perform aerial rigging.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB310 Perform aerial rigging

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed demonstrating rigging techniques for lowering, controlling and redirecting loads during tree pruning and tree removal.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- confirming location of worksite and location of correct tree as identified in scope of works
- ensuring scope of works is within capacity and limits of team and equipment
- obtaining required site permits and licenses
- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- inspecting trees and identifying structural defects in relation to taxonomic tree species, tree anatomy, and tree physiology
- considering impact of wind speed and direction on rigging methods
- considering ‘cycles to failure’ of load-bearing equipment
- selecting, preparing, and carrying out pre-operational and safety checks, on tools, equipment and machinery
- selecting and using personal protective equipment
- discussing and confirming work-zones locations and areas with work team
- recording and implementing work health, safety, site, environmental and traffic control measures
- communicating with work team during operations using voice, hand and whistle signals
- determining load limit of rigging system
- selecting appropriate anchor and attachment points

- considering mass and dimensions of tree part, centre of gravity, dimensions in relation to working space
- calculating load and balance
- consider breaking strength and safety factor of equipment in use
- determining impact of force under normal and failure conditions and apply safety factor
- designing rigging system to allow for load and impact of force
- discussing rigging system with work team
- selecting appropriate rigging equipment and inspecting for defects
- assembling and installing rigging equipment
- identifying problems, unsafe rigging practices and provide alternative rigging solutions
- maintaining effective communication with work team during rigging process
- attaching rigging and using appropriate knots as required
- monitoring and adjusting rigging system, taking into account environmental conditions
- testing tensioned load
- controlling load and raise, lowering or redirecting as required and in a manner appropriate to worksite
- operating lowering and friction devices
- performing tip lowering, butt lowering, horizontal lowering and lifting as required
- matching load frequency and size to processing capacity of ground crew
- retrieving appropriate components of rigging system
- checking proper completion of rigging operations
- cleaning and checking tools, equipment and machinery, replacing if faulty or worn, and storing
- use of industry standard terminology to describe arboriculture, equipment and work environment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- site-specific risk assessments
- above-and-below-ground services
- selection, tying methods and purpose of appropriate industry knots
- types and purposes of a range of rigging equipment and devices
- estimation of distances and dimensions of tree parts and equipment
- estimation of centre of gravity for balancing a load
- how to estimate areas for safe work zones
- estimation of breaking strength, safety factor and cycles to failure
- signals and communication systems
- common problems and hazards with rigging and their potential consequences and solutions
- breaking strain, safe working load and 'cycles to failure' for rigging equipment
- anatomy, physiology, and taxonomy of tree species for a range of trees
- how variations in weather such as wind speed and direction affect work

- signs of equipment defects
- structural defects in trees
- operational use of lowering and friction devices
- first aid and rescue personnel, equipment and procedures applicable to tree work.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - rigging equipment
 - single rope technique (SRT) climbing kit
 - static and dynamic rope kit
 - harness
 - lowering and friction devices
 - high decibel whistle
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - rescue kit
 - traffic management kit
 - signage – work zone
 - trees
- materials:
 - rigging operations form - aerial
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form
 - rescue form - aerial
 - work communications form
 - knot identification form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB311 Tie, dress, set and finish arborist knots

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to tie, dress, set and finish arborist knots, hitches and bends.

This unit applies to ground based workers undertake defined activities with appropriate methods, tools and information, work in a structured context, apply knowledge and skills to demonstrate limited autonomy and judgement, and provide solutions to a limited range of predictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Assist in preparation of work site	1.1 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.2 Confirm first aid and emergency equipment and procedures applicable to tree work 1.3 Carry out pre-operational and safety checks on ropes and equipment 1.4 Select and use appropriate personal protective equipment 1.5 Record and implement work health, safety, site, environmental and traffic control measures
2. Tie, dress and set arborist knots	2.1 Communicate with work team during operations using voice, hand and whistle signals 2.2 Determine work application for knot for ground-based, aerial, rigging and climbing work tasks 2.3 Determine appropriate knot for locking and non-locking attributes, strength, impact on rope strength, loosening and slippage 2.4 Determine loss of rope strength in using selected knot 2.5 Determine appropriate rope for knot application 2.6 Determine requirements for secondary knots and stopper knots 2.7 Tie rope to form intended knot 2.8 Leave appropriate tail length approximately five times diameter of rope 2.9 Dress knot to align all parts of knot 2.10 Adjust knot to appropriate proportions 2.11 Set knot to 'tighten and load' knot prior to use 2.12 Finish knot with selected stopper knot, tucked tail or suitable tail length
3. Inspect and use knot	3.1 Inspect completed knot 3.2 Check knot for correctness of assembly 3.3 Confirm knot for correct work application 3.4 Maintain effective communication with work team 3.5 Install and use knot in work application 3.6 Untie knot at completion of work task
4. Complete knot operations	4.1 Clean and check ropes 4.2 Report and tag faulty or worn ropes 4.3 Clean and store personal protective equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Ground-based Rigging applications must include knowledge of:

- Alpine butterfly knot
- Bowline on the bight
- Cows hitch with better half
- Clove hitch + two half hitches
- Half hitch pre knot
- Klemheist friction knot
- Marline pre knot
- Marline spike hitch
- Riggers knot + two half hitches
- Running bowline
- Sheet bend
- Slippery sheet bend
- Timber hitch
- Zeppelin bend

Above Ground applications must include knowledge of:

- Scaffold knot
- Double Fishermans Knot/Prusik loop
- Girth Hitch
- English Prusik Knot
- Marlin Spike
- Clove Hitch
- Double Overhand Stopper Knot
- Sheet bend
- Slippery Sheet Bend
- Bowline Knot
- Running Bowline Knot

Aerial Rigging applications must include knowledge of:

- Cows hitch
- Riggers knot + two half hitches
- Clove hitch + two half hitches
- Alpine butterfly knot
- Half hitch pre knot
- Marline pre knot

- Marline spike hitch
- Zeppelin bend
- Running bowline
- Bowline on the bight
- Rolling hitch
- Timber hitch
- Sheet bend
- Slippery sheet bend

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB311 Tie, dress, set and finish arborist knots

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- confirming first aid and emergency equipment and procedures applicable to tree work
- selecting and using appropriate personal protective equipment
- recording and implementing work health, safety, site, environmental and traffic control measures
- communicating with work team during operations using voice, hand and whistle signals
- determining work application for:
 - ground-based knots
 - aerial knots
 - rigging knots and
 - climbing knots
- determining appropriate knot for locking and non-locking attributes, strength, impact on rope strength, loosening and slippage
- determining loss of rope strength using selected knot
- determining appropriate rope for knot application
- determining requirements for secondary knots and stopper knots
- determining appropriate rope used for knot application
- tying knot to form intended knot
- leaving appropriate tail length approximately five times diameter of rope
- dressing knot to align all parts of knot
- setting knot to 'tighten and load' knot prior to use
- finishing knot with selected stopper knot as required

- inspecting completed knot
- checking knot for correctness of assembly
- confirming knot for correct work application
- maintaining effective communication with work team
- installing and using knot in work application
- untying knot at completion of work task
- clean and check ropes
- reporting and tagging faulty or worn ropes
- cleaning and storing personal protective equipment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- site-specific risk assessment
- first aid and emergency equipment and procedures
- personal protective equipment
- work health, safety, site, environmental and traffic control measures
- voice, hand and whistle signals
- work applications for knots
- knots for ground-based rigging tasks
- knots for aerial rigging tasks
- knots for climbing work tasks
- determination of appropriate knot by evaluation of knot attributes:
 - locking and non-locking attributes
 - impact on rope strength
 - loosening and
 - slippage
- determining loss of rope strength using selected knot
- determination of appropriate rope for knot application
- knot tying
- intended knot
- tail length
- diameter of rope
- alignment of knot parts
- knot setting
- knot tightening and loading
- stopper knot
- knot finishing
- correctness of assembly and use in application
- inspection, installation and use of knots
- effective work team communications
- tagging system

- checking and cleaning ropes.

Assessment Conditions

It is an industry requirement for the assessment of the knots appropriate to the work application as listed in the Range of Conditions section of this unit of competency.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - static and dynamic rope kit
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - traffic management kit
- materials:
 - knot identification form
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form
 - work communications form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB312 Use standard climbing techniques to access trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to climb trees with ropes and harnesses using standard techniques for the purpose of accessing required sections of trees.

This unit applies to workers who have a range of cognitive, technical and communication skills to select and apply a specialised range of methods, ropes, equipment and information to complete routine activities and provide and transmit solutions to predictable and sometimes unpredictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

AHCARB311 Tie, dress, set and finish arborist knots

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare site and inspect equipment	1.1 Determine appropriate method for accessing tree – climbing or using an elevated work platform (EWP) – through discussion with work team 1.2 Determine location of above-and-below-ground services 1.3 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.4 Confirm first aid and rescue personnel, equipment and procedures 1.5 Ensure work team member present, capable, willing and equipped to assist or perform aerial rescue operations 1.6 Prepare and carry out pre-operational and safety checks, on ropes, harnesses, tools and equipment 1.7 Select and use personal protective equipment 1.8 Record and implement work health, safety, site, environmental and traffic control measures
2. Select climbing equipment	2.1 Select harness and appropriate equipment for climbing 2.2 Inspect tree to determine low risk access route through discussion with work team and seek feedback 2.3 Estimate tree height and load in relation to safe working limits of ropes and equipment 2.4 Determine the hold, release and grip attributes of rope 2.5 Select and use dynamic rope 2.6 Select and use triple locking carabiners
3. Prepare to access tree	3.1 Tie, dress, set and finish climbing knots and hitches 3.2 Communicate with work team during operations using voice, hand and whistle signals 3.3 Maintain awareness of power line clearances 3.4 Select low risk anchor points in accordance with strength, suitability requirements and branch weight
4. Access and ascend tree	4.1 Access and ascend tree using low risk access route with harness and lanyard 4.2 Ascend using double rope with prussik technique 4.3 Ascend using trunk walking technique and foot ascenders as required
5. Descend from tree	5.1 Descend tree in a controlled manner 5.2 Remove all access equipment in a controlled manner 5.3 Clean and store access equipment 5.4 Clean and store personal protective equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCARB204A Undertake standard climbing techniques.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB312 Use standard climbing techniques to access trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed climbing trees using standard climbing techniques in a safe manner. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- appropriate method for accessing tree – climbing or using an EWP – through discussion with work team
- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- confirming first aid and rescue personnel, equipment and procedures
- ensuring work team member present, capable, willing and equipped to assist or perform aerial rescue operations
- preparing and carrying out pre-operational and safety checks, on ropes, harnesses, tools and equipment
- selecting and using personal protective equipment and safety equipment
- recording and implementing work health, safety, site, environmental and traffic control measures
- selecting harness and appropriate equipment for climbing
- inspecting tree to determine low risk access route through discussion with work team and seek feedback
- estimating tree height and load in relation to safe working limits of ropes and equipment
- determining the hold, release and grip attributes of rope
- selecting and using dynamic rope
- selecting and using triple locking carabiners
- tying, dressing, setting and finishing climbing knots and hitches
- communicating with work team during operations using voice, hand and whistle signals
- maintaining awareness of power line clearances

- selecting low risk anchor points in accordance with strength, suitability requirements and branch weight
- accessing and ascending tree using low risk access route with harness and lanyard
- ascending using double rope with prussik technique
- ascending using trunk walking technique and foot ascenders as required
- descending tree in a controlled manner
- removing all access equipment in a controlled manner
- cleaning and storing climbing equipment
- cleaning and storing personal protective equipment
- use of industry standard-terminology to describe climbing and the work environment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- appropriate method of tree access
- selection of climbing or EWP access
- determination of location of above-and-below-ground services
- site-specific risk assessment
- first aid personnel, equipment and procedures
- rescue personnel, equipment and procedures
- work health, safety, site, environmental and traffic control measures
- pre-operational and safety checks, on ropes, harnesses, tools and equipment
- personal protective equipment
- types of climbing ropes
- dynamic ropes
- rope characteristics
- uses of climbing ropes
- safe working limits of ropes
- safe working limits of equipment
- defects in ropes, tools and equipment
- climbing harnesses and lanyards
- climbing equipment
- triple locking carabiners
- arborist knots
- tying knots
- dressing knots
- setting knots
- checking knots
- finishing knots
- industry voice, hand and whistle signals
- low risk access routes
- estimation of tree height

-
- estimation of load
 - safe working limits
 - tree access techniques and equipment
 - strength and suitability requirements
 - double rope with prussik technique
 - trunk walking and foot ascenders
 - standard climbing technique
 - low risk anchor points
 - maintenance of awareness of power lines
 - power line clearances
 - controlled descent operations
 - controlled removal of access equipment
 - cleaning of equipment
 - storage of equipment
 - work health and safety measures relating to own work.

Assessment Conditions

It is an industry requirement that delivery of training and assessment in this unit provides for the explicit conditions of work team capability for aerial rescue operations. It is an industry requirement for competency in this unit that assessment must include a log record of two hundred (200) hours of standard climbing.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - standard climbing kit
 - harness
 - high decibel whistle
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - rescue kit
 - traffic management kit
 - trees

- materials:
 - climbing techniques form- standard
 - climbing log record - standard
 - hazard identification and risk control form
 - equipment and PPE check form
 - emergency preparation form
 - work communications form
 - knot identification form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB313 Identify trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify trees and their environmental and social benefits.

This unit applies to individuals who undertake defined activities with appropriate methods, tools and information, work in a structured context, apply knowledge and skills to demonstrate limited autonomy and judgement, and provide solutions to a limited range of predictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Inspect tree features	1.1 Inspect the form, structures and local environment of tree 1.2 Examine and describe tree morphology in botanical terms 1.3 Describe leaf morphology for shape, colour and size

Element	Performance criteria
	1.4 Examine and record features of buds, petiole, branchlets, branches and bark 1.5 Examine and record flower characteristics 1.6 Examine and record fruit type and characteristics 1.7 Use all relevant available senses to assist in tree identification 1.8 Record useful and key identifying attributes of tree parts
2. Inspect tree condition	2.1 Inspect tree canopy and structures for general health and condition 2.2 Use observations to recognise signs and symptoms of diseases, pests or deficiencies that assist in identification of tree 2.3 Record relevant data and identify tree where possible at this stage
3. Identify tree	3.1 Compare tree samples to images to recognise genus and species where possible 3.2 Select and use research, reference materials and field guides to define closer identification 3.3 Use taxonomic keys to analyse specific characteristics of tree to identify species and cultivar where possible
4. Identify tree benefits	4.1 Examine tree for existing habitat use and food source supply 4.2 Identify environmental benefits provided by tree in current location 4.3 Rate performance of tree in its current condition in terms of environmental and social benefits 4.4 Identify and describe value of benefits to the client and community
5. Report on results	5.1 Record identification achieved 5.2 Highlight key identifying features observed in the process 5.3 Inform the client or organisation of the results of the identification process

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB313 Identify trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- inspecting the form, structures and local environment of tree
- examining and describe tree morphology in botanical terms
- describing leaf morphology for shape, colour and size
- examining and record features of buds, petiole, branchlets, branches and bark
- examining and record flower characteristics
- examining and record fruit type and characteristics
- using all relevant available senses to assist in tree identification
- recording useful and key identifying attributes of tree parts
- inspecting tree canopy and structures for general health and condition
- using observations to recognise signs and symptoms of diseases, pests or deficiencies that assisting in identification of tree
- recording relevant data and identify tree where possible at this stage
- comparing tree samples to images to recognise genus and species where possible
- selecting and using research, reference materials and field guides to define closer identification
- using taxonomic keys to analyse specific characteristics of tree to identify species and cultivar where possible
- examining tree for existing habitat use and food source supply
- identifying environmental benefits provided by tree in current location
- rating performance of tree in its current condition in terms of environmental and social benefits
- identifying and describing value of benefits to the client and community
- recording identification achieved
- highlighting key identifying features observed in the process
- informing the client or organisation of the results of the identification process.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- form, structures and local environment of tree
- tree morphology in botanical terms
- leaf morphology for shape, colour and size
- features of buds, petiole, branchlets, branches and bark
- flower characteristics
- fruit type and characteristics
- use of sensory methods in tree identification
- useful and key identifying attributes of tree parts
- tree canopy and structures
- general health and condition of trees
- signs and symptoms of diseases, pests or deficiencies of trees that assist in tree identification
- methods of tree identification
- recording of data
- using tree samples for identification
- comparison of tree samples to images of trees
- recognition of genus and species where possible
- using research, reference materials and field guides
- taxonomy
- using taxonomic keys to identify species and cultivar where possible
- tree examination for existing habitat use and food sources
- environmental benefits provided by trees
- performance rating of tree condition
- identification of value of tree benefits to the client and community
- methods of description of value of tree benefits to the client and community
- methods of recording tree identification
- key identifying features for identification
- methods of informing client and organisation of tree identification.

Assessment Conditions

It is an industry requirement for competency in this unit that assessment requires methods of assessment that focus on the process of identification, incorporating the use of multiple reference sources and pathways to identify trees.

Assessment must provide for a minimum of sixty-five (65) identifications of different trees local to the region.

Assessment must provide for a minimum of ten (10) identifications using a taxonomic key or field guide.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - use of multiple reference sources
 - taxonomic keys
 - field guides
 - camera/phone camera
 - trees and tree specimens
- materials:
 - tree profile and benefits form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB401 Verify pruning specifications

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to verify the application of requirements of Australian Standards to operational pruning specification within a range of arboriculture operations and industry contexts.

This unit applies to individuals who supervise others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards such as AS 4373.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Locate and verify the	1.1 Confirm trees to be pruned and the desired outcomes for pruning

Element	Performance criteria
tree and site characteristics	<p>works in accordance with client brief</p> <p>1.2 Determine location of above-and-below-ground services</p> <p>1.3 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk</p> <p>1.4 Confirm identified tree species using botanical nomenclature and common names</p> <p>1.5 Verify location of tree using specific address, road sections, kilometre or measurement markers and fixed reference points of boundary lines, residential housing and fences</p> <p>1.6 Determine and document dimensions of tree recording the characteristics of the approximate height, canopy, spread and diameter-at-breast-height (DBH)</p> <p>1.7 Record and implement work health, safety, site, environmental and traffic control measures</p>
2. Inspect tree and determine specification standard	<p>2.1 Inspect trees and areas identified for pruning</p> <p>2.2 Consider tree's health, growth habit, structure, stability and growing environment</p> <p>2.3 Determine age class, code, species application and clause of pruning required in accordance with current Australian Standard 'Pruning of amenity trees'</p> <p>2.4 Determine compensatory tree care required to offset losses arising from pruning of live tissue</p> <p>2.5 Determine requirement to meet biosecurity regulations for transmission of diseases by pruning equipment and materials</p>
3. Verify crown maintenance pruning	<p>3.1 Verify smallest diameter of dead branches to be removed</p> <p>3.2 Determine maximum and average diameter of live branches to be pruned</p> <p>3.3 Verify for selective pruning operations: identity and locations of specific branches to be cut</p> <p>3.4 Verify for formative pruning operations: identity and locations of specific branch</p>
4. Verify crown modification pruning	<p>4.1 Verify for reduction pruning operations: extent of pruning best described as a percentage, and the approximate dimensions and precise nodes</p> <p>4.2 Verify for crown lifting operations: maximum diameter and location + maximum height (or minimum height)</p> <p>4.3 Verify for pollarding: dimensions of permanent structure</p> <p>4.4 Verify for remedial and restorative pruning: any key reference points in the tree and any key measurement and any objectives</p> <p>4.5 Verify for Line clearance including minimum clearance distances</p>

Element	Performance criteria
5. Verify the branch location	5.1 Verify branch location and identity by identification process starting with closest branch to ground labelled as branch number one 5.2 Read branch pattern from the ground up, verify branch selected and verify branch label with number in sequential order 5.3 Determine and document direction of branch growth by selecting North, South, East, or West and verify branch label 5.4 Verify and document height of branch attachment from ground 5.5 Describe structural order of branches 5.6 Verify approximation of branch collar diameter at location of pruning point 5.7 Use photographs to verify and confirm location of pruning cuts
6. Provide information to client and work crew	6.1 Record information on pro-forma documents 6.2 Confirm written pruning specifications 6.3 Clarify the terminology used and extent of works with the client 6.4 Document a written record of contract for the client as required 6.5 Provide completed written specification to client and work crew
7. Produce a documented record of pruning works	7.1 Assess pruning work performed against anticipated outcomes and record anomalies 7.2 Seek feedback from client on work performed 7.3 Seek feedback from work crew on clarity of specifications 7.4 Record areas of improvement for future use in specifications 7.5 Sign off on specified work and complete required records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB401 Verify pruning specifications

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- confirming trees to be pruned and the desired outcomes for pruning works in accordance with client brief
- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- identifying and record tree species using botanical nomenclature and common names
- verifying location of tree using fixed reference points of boundary lines, residential housing and fences
- determining and document dimensions of tree recording the characteristics of the approximate height, canopy, spread and diameter-at-breast-height (DBH)
- recording and implementing work health, safety, site, environmental and traffic control measures
- evaluating tree for pruning
- considering tree's health, growth habit, structure, stability and growing environment
- determining class, code, species application and clause of pruning required in accordance with current Australian Standard 'pruning of amenity trees'
- determining compensatory tree care required to offset losses arising from pruning of live tissue
- determining requirement to meet biosecurity regulations for transmission of diseases by pruning equipment and materials
- verifying smallest diameter of dead branches to be removed.
- determining maximum and average diameter of live branches to be pruned
- verifying for crown thinning operations: maximum diameter of branches; and total percentage of total crown foliage permitted to be cut

- verifying for selective pruning operations: identity and locations of specific branches to be cut
- verifying for formative pruning operations: identify and locations of specific branch
- verifying for reduction pruning operations: an extent of pruning best described as a percentage, and the approximate dimensions and precise nodes
- verifying for crown lifting operations: maximum diameter & location + maximum height (or minimum height)
- verifying for pollarding: dimensions of permanent structure
- verifying for remedial and restorative pruning: any key reference points in the tree and any key measurement and any objectives
- verifying for line clearance: minimum clearance distances
- verifying branch location and identity by identification process starting with closest branch to ground labelled as branch number one
- readying branch pattern from the ground up, select branch required and label branch with number in sequential order
- determining and document direction of branch growth by selecting north, south, east, or west and label branch
- estimating and document height of branch attachment from ground
- describing structural order of branches: first order - directly off the trunk; second order - immediately off first order; third order etc.
- verifying approximation of branch collar diameter at location of pruning point
- using photographs to verify and confirm location of pruning cuts
- recording information on pro-forma documents
- confirming written pruning specifications
- clarifying the terminology used and extent of works with the client
- documenting a written record of contract for the client as required
- providing completed written specification to client and work crew
- assessing pruning work performed against anticipated outcomes and record anomalies
- seeking feedback from client on work performed
- seeking feedback from work crew on clarity of specifications
- recording areas of improvement for future use in specifications
- signing off on specified work and completing required records
- use of industry standard terminology to describe pruning specifications
- awareness of work health and safety in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- site-specific risk assessment
- tree species using botanical nomenclature and common names
- fixed reference points
- dimensions of tree

- characteristics of the approximate height, canopy, spread and diameter-at-breast-height (DBH)
- tree's health, growth habit, structure, stability and growing environment
- tree age class, code, species application and clause of pruning required in accordance with current Australian Standard 'Pruning of amenity trees'
- compensatory tree care
- losses arising from pruning of live tissue
- biosecurity regulations
- transmission of diseases by pruning equipment and materials
- specification for crown thinning operations
- specification for selective pruning operations
- specification for formative pruning operations
- specification for reduction pruning operations
- specification for crown lifting operations
- specification for pollarding
- maximum and average diameter of live branches
- total crown foliage
- identity and locations of specific branches
- extent of pruning best described as a percentage
- approximate dimensions and precise nodes
- maximum height (or minimum height)
- dimensions of permanent structure
- specification for remedial and restorative pruning
- specification for line clearance
- specification for branch location and identity by identification process
- key reference points in the tree
- minimum clearance distances
- branch pattern
- sequential order
- direction of branch growth by selecting north, south, east, or west
- approximation of branch collar diameter
- location of pruning point
- pro-forma documents
- pruning specifications
- terminology
- written record of contract
- specifications
- anticipated outcomes
- anomalies
- specified work.

Assessment Conditions

It is an industry requirement for competency in this unit that assessment includes the assessment of pruning works on each of the maintenance and modification operations:

- crown maintenance pruning
- crown thinning operations
- selective pruning operations
- formative pruning operations
- reduction pruning operations
- crown lifting operations
- pollarding
- remedial and restorative pruning
- line clearance

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
 - digital camera/phone camera
 - tree
- materials:
 - site-specific risk assessment form
 - pruning specification form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB402 Supervise and audit tree operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out supervision and auditing of tree operations on arboricultural work sites in accordance with existing tree hazard evaluation and pruning specification documentation.

This unit applies to individuals who supervise others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, the relevant content of applicable Australian Standards.

Pre-requisite Unit

AHCARB404 Conduct a safety audit

AHCARB302 Inspect trees for access and work*

AHCARB313 Identify trees

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare site and equipment	1.1 Determine location of above-and-below-ground services 1.2 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.3 Assess site conditions for requirements of equipment, personnel and access 1.4 Determine appropriate pruning tools, equipment and machinery according to pruning specification and site-specific assessment 1.5 Record and implement work health, safety, site, environmental and traffic control measures
2. Supervise and monitor tree operations	2.1 Supervise and confirm site establishment conforms to requirements 2.2 Confirm toolbox meeting participation and documentation 2.3 Confirm tree evaluation from hazard evaluation report provided 2.4 Implement written specification for pruning works 2.5 Communicate written specification to work team and confirm response 2.6 Conduct safety audit of personnel, equipment, machinery and documentation 2.7 Resolve areas of conflict with work team and individuals 2.8 Monitor safety issues arising from drug and alcohol use 2.9 Promote work team-building exercises 2.10 Document areas of improvement in work operations 2.11 Issue verbal and written improvement notices
3. Audit and report tree operations	3.1 Monitor pruning techniques for compliance to the written specifications and AS 4373 3.2 Estimate and record volume of pruning program works 3.3 Audit quality of pruning works 3.4 Document and record additional pruning works required 3.5 Report compliance and audit results

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB402 Supervise and audit tree operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- assessing site conditions for requirements of equipment, personnel and access
- determining appropriate pruning tools, equipment and machinery according to pruning specification and site-specific assessment
- recording and implement work health, safety, site, environmental and traffic control measures
- supervising and confirm site establishment conforms to requirements
- confirming toolbox meeting participation and documentation
- confirming tree evaluation from hazard evaluation report provided
- using provided written specification for pruning works
- communicating written specification to work team and confirm response
- conducting safety audit of personnel, equipment, machinery and documentation
- supervising and monitor tree operations
- documenting areas of improvement in work operations
- issuing verbal and written improvement notices
- monitoring pruning techniques for compliance to the written specifications and as 4373
- estimating and record volume of pruning program works
- auditing quality of pruning works
- documenting and record additional pruning works required
- reporting compliance and audit results
- use of industry standard terminology to describe supervision and audit operations.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- location of above-and-below-ground services
- site-specific risk assessment
- work health and safety hazards
- work health, safety, site, environmental and traffic control measures
- site conditions
- appropriate pruning tools, equipment and machinery
- pruning specification
- site establishment
- conformance to requirements
- toolbox meeting
- tree evaluation
- hazard evaluation
- written specification for pruning works
- safety audit of personnel, equipment, machinery and documentation
- verbal and written improvement notices
- compliance to the written specifications
- tree operations
- auditing quality of pruning works
- compliance and audit results
- work health and safety in the context of own work.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
 - digital camera/phone camera
 - trees

- materials:
 - site-specific risk assessment form
 - safety audit form
 - safety audit report
 - pruning specification form
 - compliance and audit report form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB403 Perform a ground-based tree defect evaluation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to examine trees from the ground in order to evaluate the increased likelihood of failure of trees or tree parts.

This unit applies to individuals who supervise others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, the relevant content of applicable Australian Standards and Safe Australia Code of Practice.

Pre-requisite Unit

AHCARB302 Inspect trees for access and work*

AHCARB313 Identify trees

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Determine evaluation requirements	1.1 Confirm trees to be evaluated in accordance with client brief 1.2 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 1.3 Determine targets that need to be considered 1.4 Determine tree hazard benchmarks appropriate for project 1.5 Record and implement work health, safety, site, environmental and traffic control measures
2. Examine visual tree indicators	2.1 Inspect tree from ground 2.2 Determine tree health 2.3 Examine tree anatomy and morphology for past failures 2.4 Examine tree for outwardly apparent defects 2.5 Examine tree for visual indicators of concealed defects 2.6 Examine tree for visual indicators of disease leading to structural failure 2.7 Examine tree for visual indicators of organisms causing damage leading to structural failure 2.8 Determine if failure is likely to result in target being impacted
3. Undertake basic testing	3.1 Sound for cavities suggested by openings and visual indicators 3.2 Probe any accessible cavities and openings 3.3 Expose root crown where required 3.4 Remove loose bark where appropriate 3.5 Determine whether tree or tree parts are a hazard in accordance with benchmarks
4. Record tree attribute and indicators	4.1 Photograph and record tree species and site of tree 4.2 Record the health and approximate dimensions of the tree 4.3 Record and photograph the defects and visual indicators 4.4 Describe, illustrate and indicate on image or device, the approximate location on the tree 4.5 Record approximate dimensions of affected tree part and defect 4.6 Record results of evaluation
5. Mitigate risk and document actions	5.1 Advise client immediately of evaluation, where a tree poses an imminent threat 5.2 Take action as instructed in accordance with work place policies and client brief 5.3 Isolate the tree or move target as instructed in accordance with work place policies and client brief 5.4 Document immediate actions taken
6. Document and report	6.1 Compile hazard evaluation documentation

Element	Performance criteria
hazards and recommendations	6.2 Recommend further action of including aerial inspection and load testing or seek further advice from a consulting arborist 6.3 Determine and document any tree work required to mitigate risks 6.4 Submit tree hazard evaluation report to client or employer

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB403 Perform a ground-based tree defect evaluation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- confirming trees to be evaluated in accordance with client brief
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- determining targets that need to be considered
- determining tree hazard benchmarks appropriate for project
- recording and implementing work health, safety, site, environmental and traffic control measures
- inspecting tree from ground
- determining tree health
- examining tree for past failures
- examining tree for visual indicators of outwardly apparent defects
- examining tree for visual indicators of concealed defects
- examining tree for visual indicators of disease leading to structural failure
- determining if failure is likely to result in target being impacted
- sounding for cavities suggested by openings and visual indicators
- probing any accessible cavities and openings
- exposing root crown where required
- removing loose bark where appropriate
- determining if tree exceeds tree hazard benchmarks for project
- photographing and recording tree species and site of tree
- recording health and approximate dimensions of the tree
- recording and photographing defects and visual indicators

- describing, illustrating and indicating on image or device, the approximate location on the tree
- recording approximate dimensions of affected tree part and defect
- recording results and advising client of evaluation
- advising client immediately of evaluation where a tree poses an imminent threat
- taking action as instructed in accordance with work place policies and client brief
- isolating the tree or move target as instructed in accordance with work place policies and client brief
- documenting immediate actions taken.
- compiling hazard evaluation documentation
- recommending further action of aerial inspection and load testing or seek further advice from a consulting arborist
- determining and documenting any tree work required to mitigate risks
- submitting tree hazard evaluation report to client or employer
- use of industry standard terminology to describe hazard evaluation.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- client briefs
- site-specific risk assessment
- work health and safety hazards and assessing risk
- targets and the role of targets in tree risk assessment
- tree hazard benchmarks
- work health, safety, site, environmental and traffic control measures
- tree inspections
- tree health
- methods of determining tree health
- tree anatomy and morphology for past failures
- tree examinations for outwardly apparent defects
- tree examinations for visual indicators of concealed defects
- tree examinations for visual indicators of disease leading to structural failure
- tree examinations for visual indicators of organisms causing damage leading to structural failure
- likelihood of target impaction
- cavity sounding and probing techniques
- visual indicators of root crowns and bark
- determination whether tree or tree parts are a hazard in accordance with benchmarks
- photography and recording of tree species, site of tree, approximate location of trees, and defects and visual indicators
- health and approximate dimensions of the tree and affected tree part and defect
- imminent threat
- tree isolation methods

- methods of moving targets
- documentation of hazard evaluation
- risk mitigation
- recommendations of aerial inspection and load testing
- advice from a consulting arborist
- presentation of reports.

Assessment Conditions

It is an industry requirement for competency in this unit that assessment includes a minimum of twenty (20) ground-based tree defect evaluations, and requires a minimum of at least one (1) consultation with a consulting arborist to participate in a ground-based tree defect evaluation. The evaluations are required to cover twenty separate and individual trees, of a minimum of fifteen (15) different tree species, and each of the evaluations is required to be a whole-of-tree investigation.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - trees
 - cross-sectioned tree visual indicators of defects and diseases
- materials:
 - site-specific risk assessment form
 - defect evaluation form
 - tree evaluation report

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB404 Conduct a safety audit

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to conduct safety audits of personnel and equipment involved in tree operations.

This unit applies to individuals who supervise others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method documentation.

Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Perform audit planning	1.1 Identify safety audit objectives, scope and focus 1.2 Identify target operations and documentation 1.3 Determine safety audit process and sampling technique 1.4 Determine frequency and random timing of audit event

Element	Performance criteria
	1.5 Prepare audit documentation 1.6 Conduct pre-audit communications with client and relevant stakeholders
2. Undertake safety audit activities	2.1 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk 2.2 Conduct random audit testing of site operations for usage of personal protective equipment 2.3 Conduct regular audit testing of tools, equipment and machinery for defective components 2.4 Conduct random audit inspection of dedicated rescue equipment 2.5 Conduct regular audit testing of operational, start-up and maintenance procedures for tools, equipment and machinery and associated checklist documentation 2.6 Conduct regular audit inspection of hazard identification, risk control and toolbox meeting documentation 2.7 Conduct random audit interviews for quality checking of personal protective equipment and clothing 2.8 Confirm currency and availability of tickets and certifications required by personnel to perform specialised work functions 2.9 Implement safety audits at appropriate frequency
3. Identify and respond to non-conformance	3.1 Identify and record non-conformance 3.2 Identify situations requiring referral 3.3 Issue verbal and written warnings for non-conforming work practices 3.4 Issue verbal and written notices for unsafe work practices 3.5 Tag tools and equipment requiring repairs and label with repair information details 3.6 Tag unsafe tools and equipment with 'Do Not Operate' tags and remove from operational use areas 3.7 Provide advice for improvement and rectification of non-conformance
4. Record, report and present audit results	4.1 Prepare safety audit report 4.2 Make final recommendations on action required 4.3 Obtain responses and finalise audit 4.4 Record safety audit findings 4.5 Conduct post-audit communications with client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB404 Conduct a safety audit

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- identifying safety audit objectives, scope and focus
- identifying target operations and documentation
- determining safety audit process and sampling technique
- determining frequency and random timing of audit event
- preparing audit documentation
- conducting pre-audit communications with client and relevant stakeholders
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- conducting random audit testing of site operations for usage of personal protective equipment
- conducting regular audit testing of tools, equipment and machinery for defective components
- conducting random audit inspection of dedicated rescue equipment
- conducting regular audit testing of operational, start-up and maintenance procedures for tools, equipment and machinery and associated checklist documentation
- conducting regular audit inspection of hazard identification, risk control and toolbox meeting documentation
- conducting random audit interviews for quality checking of personal protective equipment and clothing
- confirming currency and availability of tickets and certifications required by personnel to perform specialised work functions
- implementing safety audits at appropriate frequency
- identifying and record non-conformance
- identifying situations requiring referral

- issuing verbal and written warnings for non-conforming work practices
- issuing verbal and written notices for unsafe work practices
- tagging tools and equipment requiring repairs and label with repair information details
- tagging unsafe tools and equipment with 'do not operate' tags and remove from operational use areas
- providing advice for improvement and rectification of non-conformance
- preparing safety audit report
- making final recommendations on action required
- obtaining responses and finalising audit
- recording safety audit findings
- conducting post-audit communications with client
- use of industry standard terminology to describe safety audits.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- safety audit objectives
- safety audit scope
- safety audit focus
- target operations
- site-specific risk assessment
- safety audit process
- sampling technique
- audit frequency
- random timing of audit event
- audit documentation
- pre-audit communications
- random audit testing of site operations for usage of personal protective equipment
- regular audit testing of tools, equipment and machinery for defective components
- random audit inspection of rescue equipment
- regular audit testing of operational, start-up and maintenance procedures for tools, equipment and machinery and associated checklist documentation
- currency and availability of tickets and certifications
- non-conformance
- non-conforming work practices
- referral
- verbal and written warnings
- tagging tools and equipment requiring repairs
- repair information details
- tagging unsafe tools and equipment with 'do not operate' tags
- rectification of non-conformance
- advice for improvement of non-conformance

- safety audit report
- final recommendations on action required
- safety audit findings
- post-audit communications.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
 - digital camera/phone camera
- materials:
 - site-specific risk assessment form
 - safety audit form
 - safety audit report

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB405 Perform geospatial data collection

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to perform geospatial data collection required for tree plans and drawings.

This unit applies to individuals who supervise others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method documentation.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine functionality requirements	1.1 Determine technical and business requirements for geospatial data collection 1.2 Determine suitability and requirements of using geographical information system (GIS) 1.3 Determine suitability of software application for intended purpose

Element	Performance criteria
	1.4 Consider features of remote positioning and satellite shadow reduction 1.5 Consider end-to-end capability as required 1.6 Determine asset management requirements for GIS data 1.7 Consider functional ease-of-use, mobility and reliability 1.8 Evaluate future-proofed solutions and outcomes 1.9 Select geospatial data collection equipment
2. Set up device	2.1 Complete relevant start-up procedures 2.2 Determine operational data fields 2.3 Determine data tables and associated attributes 2.4 Configure fields for operational use
3. Collect and enter data	3.1 Undertake functional testing of hand held device for connectivity 3.2 Use global positioning system (GPS) to supply co-ordinate data 3.3 Use latitude and longitude co-ordinates to locate designated trees 3.4 Correct co-ordinate data at tree site visually as required 3.5 Update and correct tree attribute data as required 3.6 Collect and enter data
4. Process and analyse data	4.1 Check data for accuracy for post-processing 4.2 Download GIS data 4.3 Process GIS data 4.4 Analyse data with appropriate techniques

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB405 Perform geospatial data collection

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can demonstrate:

- determining technical and business requirements for geospatial data collection
- determining suitability and requirements of using geographical information system (GIS)
- determining suitability of software application for intended purpose
- consider features of remote positioning and satellite shadow reduction
- considering end-to-end capability as required
- determining asset management requirements
- considering functional ease-of-use, mobility and reliability
- evaluate future-proofed solutions and outcomes
- selecting geospatial data collection equipment
- completing relevant start-up procedures
- determining operational data fields
- determining data tables and associated attributes
- configuring fields for operational use
- undertaking functional testing of hand held device for connectivity
- using co-ordinates to locate designated trees
- correcting co-ordinate data at tree site visually as required
- updating and correcting tree attribute data as required
- collecting and entering data
- checking data for accuracy for post-processing
- downloading business data
- processing business data
- analysing data with appropriate techniques
- use of industry standard terminology to describe.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- geospatial data
- collection of geospatial data
- technical and business requirements for geospatial data collection
- suitable software applications for using geospatial data
- remote positioning
- satellite shadow reduction
- end-to-end capability
- asset management
- attributes of functional ease-of-use, mobility and reliability
- geospatial data collection equipment
- configuring data fields
- global positioning system (GPS)
- latitude and longitude co-ordinates
- start-up procedures
- data fields
- data tables
- tree attribute data
- data entry
- data processing.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - GIS data collection equipment
 - computer and software
 - internet connection
- materials:
 - data operations form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB502 Identify, select and specify trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to inspect, identify, select and specify a range of trees for suitability for an intended purpose.

The unit has a wide range of applications in urban and regional areas for local government and legal contexts in the specification of trees in residential, commercial, public open spaces and amenity areas. The unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work, to analyse and synthesise information, and design and communicate solutions for complex problems. The role involves the self-directed application of knowledge with substantial depth in areas such as tree identification, tree selection criteria and tree functionality.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable current versions of Australian Standards such as AS 2303, AS 2223 and AS 3743.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine the suitability of trees	1.1 Consult client, develop a brief and gain agreement 1.2 Undertake site inspection according to the client brief 1.3 Determine legislative requirements, regulatory requirements and requirements of Australian Standards 1.4 Determine functional life expectancy of site and plantings 1.5 Determine tree function for the precise location within the plan 1.6 Confirm that species and cultivar selection is appropriate for the aspect and site dimensions 1.7 Research trees suitable for the intended purpose using multiple reference sources
2. Identify and select trees	2.1 Identify trees suitable for the intended purpose using multiple reference sources and use of taxonomic keys 2.2 Give consideration to tree morphology, physiology and ethnobotany in the identification of suitable trees 2.3 Estimate planting area dimensions for the tree species or cultivar 2.4 Confirm that soil volume is proportioned to the size of tree in consideration and assess soil for suitability as a growth medium 2.5 Consider environmental conditions including site hydrology for the functional characteristics of the tree and apply findings 2.6 Evaluate soils, soil mixes and growing media for density, organic content, nutrient status, and physical and chemical properties 2.7 Appraise a wide range of soils, soil mixes and growing media 2.8 Make recommendations for soil, soil mix and growth medium improvements by determining soil suitability for intended purpose 2.9 Evaluate trees from an extensive range of trees common in the region 2.10 Select trees in accordance with suitability for the intended purpose as quality criterion 2.11 Evaluate and document the rationale for tree selection 2.12 Recommend tree species or cultivars for replacement or new plantings 2.13 Document tree selections, selection criteria and notes on quality expectations as specifications
3. Specify trees	3.1 Incorporate determined criteria for size of stock selection into the specifications 3.2 Match species and cultivars appropriately to the determined

Element	Performance criteria
	<p>selection criteria for species-specific characteristics</p> <p>3.3 Evaluate selection criteria for mature trees against capability for transplanted trees</p> <p>3.4 Assess final selections against the specified soil, site location and client brief and confirm the tree specification</p> <p>3.5 Inspect selected plants on site for structural quality, root health and quantities according to the specifications</p> <p>3.6 Inspect delivered materials, soils and growing media on site for quality assurance in accordance with the specifications</p> <p>3.7 Record quality checks on delivered plants and products</p>
4. Correlate and present a report	<p>4.1 Compile tree selections into a database of tree specimens and characteristics based on tree taxonomy and nomenclature, and suitability characteristics</p> <p>4.2 Produce a report of the identification, selection and specification process and incorporate the correlated records</p> <p>4.3 Present the client or organisation with the report</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCARB502A Identify, select and specify trees.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB502 Identify, select and specify trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must produce a report of the tree identification, selection and specification process that recommends tree species for a site and incorporates the tree selections into a database of tree specimens and characteristics. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- consulting client, developing a brief and gaining agreement
- undertaking site inspection according to the client brief
- determine legislative requirements, regulatory requirements and requirements of Australian Standards including AS 2303, AS 2223 and AS 3743
- determining functional life expectancy of site and plantings
- determining tree function for the precise location within the plan
- confirming that species and cultivar selection is appropriate for the aspect and site dimensions
- researching trees suitable for the intended purpose using multiple reference sources
- identifying trees suitable for the intended purpose using multiple reference sources and use of taxonomic keys
- giving consideration to tree morphology, physiology and ethnobotany in the identification of suitable trees
- estimating planting area dimensions for the tree species or cultivar
- confirming that soil volume is proportioned to the size of tree in consideration and assess soil for suitability as a growth medium
- considering environmental conditions including site hydrology for the functional characteristics of the tree and apply findings
- evaluating soils, soil mixes and growing media for density, organic content, nutrient status, and physical and chemical properties
- appraising a wide range of soils, soil mixes and growing media

- making recommendations for soil, soil mix and growth medium improvements by determining soil suitability for intended purpose
- evaluating trees from an extensive range of trees common in the region
- selecting trees in accordance with suitability for the intended purpose as quality criterion
- evaluating and document the rationale for tree selection
- recommending tree species or cultivars for replacement or new plantings
- documenting tree selections, selection criteria and notes on quality expectations as specifications
- incorporating determined criteria for size of stock selection into the specifications
- matching species and cultivars appropriately to the determined selection criteria for species-specific characteristics
- evaluating selection criteria for mature trees against capability for transplanted trees
- assessing final selections against the specified soil, site location and client brief and confirm the tree specification
- inspecting selected plants on site for structural quality, root health and quantities according to the specifications
- inspecting delivered materials, soils and growing media on site for quality assurance in accordance with the specifications
- recording quality checks on delivered plants and products
- compiling tree selections into a database of tree specimens and characteristics based on tree taxonomy and nomenclature, and suitability characteristics
- producing a report of the identification, selection and specification process and incorporate the correlated records
- presenting the client or organisation with the report.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- client consultation and client brief
- legislative requirements and regulatory requirements
- site inspections
- functional life expectancy of tree and site
- tree functionality for precise locations
- selection of tree species and cultivars
- appropriateness of species and cultivar selection for site aspect and dimensions
- how to research and use multiple sources of reference material
- concept of 'suitability for a purpose'
- trees suitable for an intended purpose
- methods of determining the suitability of a tree for a purpose
- tree identification using multiple reference sources
- tree identification using taxonomic keys
- ethnobotany, morphology, physiology, taxonomy and nomenclature
- tree species-specific characteristics

- environmental conditions for the functional characteristics of the tree
- estimation of planting area dimensions
- soil volume proportions to the size of tree
- site hydrology
- evaluation of soils, soil mixes and growing media for characteristics of density, organic content, nutrient status, and physical and chemical properties
- appraisal of a wide range of soils, soil mixes and growing media
- recommendations for soil, soil mix and growth medium improvements
- soil suitability for intended purpose
- methods of assessment of soil for suitability as a growth medium
- evaluation of trees from an extensive range of trees common in the region
- tree selection methodology using quality criteria of suitability for purpose
- evaluation and documentation of rationale for tree selection
- recommendations of tree species or cultivars for replacement or new plantings
- documentation of tree selections, selection criteria and notes on quality expectations as specifications
- incorporation of criteria for size of stock selection into specifications
- methods of matching species and cultivars appropriately to the determined selection criteria for species-specific characteristics
- selection criteria for mature trees against capability for transplanted trees
- assessment of final selections against the specified soil, site location and client brief and confirmation of the tree specification
- inspection methods for structural quality, root health and quantities of plants on site
- inspection of delivered materials, soils and growing media on site for quality assurance in accordance with the specifications
- methods of quality control and quality assurance
- how to monitor quality and apply quality controls
- tree structural quality
- recording quality checks on delivered plants and products
- methods of data capture
- database construction
- characteristics of taxonomy and nomenclature required for database use
- characteristics of tree 'suitability for a purpose' required for database use
- compilation of tree selections into a database of tree specimens and characteristics based on tree taxonomy and nomenclature, and suitability characteristics
- report production of the identification, selection and specification process.

Assessment Conditions

It is an industry requirement for competency in this unit that assessment includes construction of a database that must contain a minimum of eighty (80) tree species with general characteristics of suitability for the intended purpose and key identifying features, and an additional twenty (20) intensive tree profiles detailing attributes of the location, taxonomic characteristics, edaphic and environmental preferences and limitations of the tree. The database must include woody monocots and gymnosperms.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
 - digital camera/phone camera
 - soil testing equipment
 - loupe
 - field guides
 - print and digital taxonomic keys
 - trees
 - soils, soil mixes and growing media
- materials:
 - tree profile and benefits form
 - tree selection and specification form
 - database of tree selections and suitability characteristics
 - report of the identification, selection and specification process

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed

- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB504 Develop an arboricultural impact assessment report

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan for and monitor the protection of trees at sites where there may be threats to the trees.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work, to analyse and synthesise information and design, and to communicate solutions to complex problems. The role involves the self-directed application of knowledge with substantial depth in some areas such as tree assessment techniques, the impact of development on trees and specialist tree protection techniques and reporting methods.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards such as the current AS 4970 Protection of trees on development sites.

Pre-requisite Unit

AHCARB502 Identify, select and specify trees

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Undertake assessment of trees on site	1.1 Identify and research relevant legislation and Australian Standards 1.2 Determine specific requirements of Statutory authorities in relation to trees on development site 1.3 Determine local government planning laws, tree protection and preservation regulations 1.4 Conduct a site assessment and identify conditions that impact tree protection program 1.5 Identify work health and safety hazards that impact safety of staff and public, assess level of risk and apply controls 1.6 Identify hazards, activities and circumstances that have potential to harm trees and assess the level of risk 1.7 Locate and confirm trees plotted on survey plan 1.8 Plot trees not on plan onto survey plan
2. Compile preliminary tree assessment data	2.1 Collect available relevant plans and documentation 2.2 Identify and record tree genus and species by botanical and common name 2.3 Record tree dimensions, height, crown spread and diameter-at-breast-height (DBH) 2.4 Determine age class and estimate life expectancy 2.5 Determine tree health in relation to tree physiology and pathology 2.6 Determine condition of tree structure in relation to tree anatomy 2.7 Consider heritage and cultural issues 2.8 Consider habitat, ecology and other matters relevant to the site 2.9 Consider location relative to existing and past site structures 2.10 Determine the retention value 2.11 Compile all tree assessment data required for report
3. Document preliminary arboricultural report	3.1 Record all trees and groups of trees suitable for retention 3.2 Determine indicative tree protection zone for each tree 3.3 Plot tree identifiers and indicative tree protection zone on survey plan 3.4 Document preliminary arboricultural report
4. Record impact of proposed development on trees	4.1 Interpret existing plans, working drawings, terms and symbols 4.2 Interpret development and design language 4.3 Consider how development can result in mechanical and chemical damage and determine appropriate controls 4.4 Determine impact of proposed development on trees 4.5 Provide preliminary feedback to client on potential areas of

Element	Performance criteria
	improvement
5. Determine indicative and actual tree protection zones	5.1 Assess development requirements for site access and logistics 5.2 Consider indicative tree protection zone 5.3 Determine extent of encroachment into indicative tree protection zone 5.4 Determine whether works will impact on structural root zone 5.5 Determine extent and area of structural root zone 5.6 Determine actual tree protection zone for trees to be retained 5.7 Define and record the actual tree protection zones
6. Demonstrate tree viability to major encroachment	6.1 Determine level of encroachment 6.2 Assess for a major encroachment: location and distribution of roots; potential loss of root mass; species tolerance to root loss; and age, health, size, lean and stability of tree 6.3 Consider impact of major encroachment on health, physiology and structural integrity of tree 6.4 Assess soil characteristics and volume and presence of existing or past structures and design factors 6.5 Consider how site and design factors minimise impact of proposed encroachment on tree 6.6 Demonstrate that the tree would remain viable 6.7 Determine additional remedial measures required
7. Develop protection measures and advise client	7.1 Develop an evidentiary portfolio of tree protection devices, techniques, tree-sensitive design and construction measures and tree responses to development activities 7.2 Specify protection devices, techniques and systems to minimise impact of development 7.3 Determine installation and construction methods for tree protection and produce working drawings for on-site personnel for implementation 7.4 Provide advice on tree removal and tree pruning program to client
8. Document the relevant reports	8.1 Prepare draft arboricultural impact assessment report 8.2 Develop tree protection plan and tree protection plan (drawing) 8.3 Prepare and document tree management and monitoring guidelines with alternative strategies for possible problems 8.4 Consolidate relevant reports, plans and guidelines into final version of arboricultural impact assessment report in digital and print format and present to client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCARB504A Develop a tree protection plan.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB504 Develop an arboricultural impact assessment report

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must compile reports, plans and guidelines into an arboricultural impact assessment report and develop an evidentiary tree protection portfolio.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- identifying and researching relevant legislation and Australian Standards
- determining specific requirements of statutory authorities in relation to trees on development site
- determining local government planning laws, tree protection and preservation regulations
- conducting a site assessment and identify conditions that impact tree protection program
- identifying work health and safety hazards that impact safety of staff and public, assess level of risk and apply controls
- identifying hazards, activities and circumstances that have potential to harm trees and assess the level of risk
- locating and confirming trees plotted on survey plan
- plotting trees not on plan onto survey plan
- collecting available relevant plans and documentation
- identifying and record tree genus and species by botanical and common name
- recording tree dimensions, height, crown spread and diameter-at-breast-height (DBH)
- determining age class and estimate life expectancy
- determining tree health in relation to tree physiology and pathology
- determining condition of tree structure in relation to tree anatomy
- considering heritage and cultural issues
- considering habitat, ecology and other matters relevant to the site
- considering location relative to existing and past site structures

- determining the retention value
- compiling all tree assessment data required for report
- recording all trees and groups of trees suitable for retention
- determining indicative tree protection zone for each tree
- plotting tree identifiers and indicative tree protection zone on survey plan
- documenting preliminary arboricultural report
- interpreting existing plans, working drawings, terms and symbols
- interpreting development and design language
- considering how development can result in mechanical and chemical damage and determine appropriate controls
- determining impact of proposed development on trees
- providing preliminary feedback to client on potential areas of improvement
- assessing development requirements for site access and logistics
- considering indicative tree protection zone
- determining extent of encroachment into indicative tree protection zone
- determining whether works will impact on structural root zone
- determining extent and area of structural root zone
- determining actual tree protection zone for trees to be retained
- defining and recording the actual tree protection zones
- determining level of encroachment
- assessing for a major encroachment: location and distribution of roots; potential loss of root mass; species tolerance to root loss; and age, health, size, lean and stability of tree
- considering impact of major encroachment on health, physiology and structural integrity of tree
- assessing soil characteristics and volume and presence of existing or past structures and design factors
- considering how site and design factors minimise impact of proposed encroachment on tree
- demonstrating that the tree would remain viable
- determining additional remedial measures required
- developing an evidentiary portfolio of tree protection devices, techniques, tree-sensitive design and construction measures and tree responses to development activities
- specifying protection devices, techniques and systems to minimise impact of development
- determining installation and construction methods for tree protection and produce working drawings for on-site personnel for implementation
- providing advice on tree removal and tree pruning program to client
- preparing draft arboricultural impact assessment report
- developing tree protection plan and tree protection plan (drawing)
- preparing and documenting tree management and monitoring guidelines with alternative strategies for possible problems
- consolidating relevant reports, plans and guidelines into final version of arboricultural impact assessment report in digital and print format and presenting to client.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant legislation and Australian Standards
- specific requirements of statutory authorities in relation to trees on development site
- local government tree protection and preservation regulations
- site assessment and conditions that impact tree protection programs
- plotting trees/ tree identifiers onto survey plans
- tree genus and species by botanical and common name
- tree dimensions, height, crown spread and diameter-at-breast-height (DBH)
- age class and estimate life expectancy
- tree health in relation to tree physiology and pathology
- heritage and cultural issues
- habitat, ecology and other matters relevant to the site
- methods of calculation of retention value
- indicative tree protection zones
- preliminary arboricultural reports
- interpretation of existing plans, working drawings, terms and symbols
- development and design language
- principles and methods of mechanical and chemical damage control
- impact of proposed development on trees
- structural root zone
- actual tree protection zones
- level of encroachment
- assessment of a major encroachment: location and distribution of roots; potential loss of root mass; species tolerance to root loss; and age, health, size, lean and stability of tree
- soil assessment of characteristics and volume
- viability of a tree
- evidentiary portfolio of tree protection devices, techniques, tree-sensitive design and construction measures and tree responses to development activities
- principles and techniques of tree protection devices, methods and systems
- installation and construction methods for tree protection
- principles and methods relating to protecting trees from human activities
- working drawings for on-site personnel for implementation
- methods of documentation of tree management and monitoring guidelines
- draft arboricultural impact assessment report
- anatomy, physiology and pathology of trees
- interpretation of plans and working drawings
- tree protection plan and tree protection plan (drawing)
- documentation of tree management and monitoring guidelines
- final version of arboricultural impact assessment report
- digital and print formats.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
 - personal protective equipment (PPE)
 - digital camera/phone camera
 - loupe
 - basic diagnostic tools including sounding hammer, trowel, probe, cordless drill
 - basic soil testing equipment
 - trees
- materials:
 - preliminary arboriculture report
 - arboricultural impact assessment report

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB505 Document and audit tree work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to review and audit all aspects of arboricultural operations.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work, to analyse and synthesise information, and design and communicate solutions to complex problems. The role involves the self-directed application of knowledge with substantial depth in areas such as auditing, conformance, tree assessment and an extensive range of tree operations.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states & territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify and gather information	1.1 Identify audit objectives, scope and focus 1.2 Identify target operations and documentation 1.3 Determine audit process and sampling technique 1.4 Determine frequency and random timing of audit event 1.5 Prepare audit documentation 1.6 Conduct pre-audit communications with client and relevant stakeholders 1.7 Gather relevant information, sample documentation, codes of practice and Australian Standards
2. Audit tree works	2.1 Organise on-site inspections to conduct the audit process 2.2 Audit the specific tree works operation being undertaken 2.3 Audit any pruning, removal, transplanting, planting, tree protection techniques and arboricultural practices being undertaken 2.4 Inspect and assess arboricultural works that may impact on tree physiology, anatomy, pathology and environment 2.5 Audit works in relation to relevant documentation and legislation 2.6 Determine the extent of work with conformance to relevant documentation and legislation 2.7 Identify and record non-conformance 2.8 Assess extent and manner of non-conformance 2.9 Document findings and relevant field notes
3. Assess impact of non-arboricultural works	3.1 Inspect and assess non-arboricultural works that may impact on the tree or its environment 3.2 Determine impact of non-arboricultural works of clients, contractors and stakeholders 3.3 Provide feedback on non-arboricultural works to clients, contractors and stakeholders
4. Provide feedback to contractors, clients and stakeholders	4.1 Provide feedback on the findings of the inspections to clients, contractors and stakeholders 4.2 Provide advice for improvement, rectification and management of non-conformances 4.3 Prioritise required ongoing management
5. Document and present audit report, notifications and plans	5.1 Document audit report and non-conformance notifications 5.2 Advise statutory authorities where required 5.3 Document an ongoing management plan specifying the tree management techniques and practices required to address the audit findings 5.4 Document a rectification plan specifying the required

Element	Performance criteria
	rectifications of non-conformances 5.5 Present reports and plans to client and relevant stakeholders

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCARB505A Document and audit tree work.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB505 Document and audit tree work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must produce a tree work audit report that contains all findings, recommendations, non-conformance, notifications and an ongoing management plan. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- identifying audit objectives, scope and focus
- identifying target operations and documentation
- determining audit process and sampling technique
- determining frequency and random timing of audit event
- preparing audit documentation
- conducting pre-audit communications with client and relevant stakeholders
- gathering relevant information, sample documentation, codes of practice and Australian Standards
- organising on-site inspections to conduct the audit process
- auditing the specific tree works operation being undertaken
- auditing any pruning, removal, transplanting, planting, tree protection techniques and arboricultural practices being undertaken
- inspecting and assessing arboricultural works that may impact on the tree physiology, anatomy, pathology and environment
- auditing works in relation to relevant documentation and legislation
- determining the extent of work with conformance to relevant documentation and legislation
- identifying and recording non-conformance
- assessing extent and manner of non-conformance
- documenting findings and relevant field notes
- inspecting and assessing non-arboricultural works that may impact on the tree or its environment

- determining impact of non-arboricultural works of clients, contractors and stakeholders
- providing feedback on non-arboricultural works to clients, contractors and stakeholders
- providing feedback on the findings of the inspections to clients, contractors and stakeholders
- providing advice for improvement, rectification and management of non-conformances
- prioritising required ongoing management
- documenting audit report and non-conformance notifications
- advising statutory authorities where required
- documenting an ongoing management plan specifying the tree management techniques and practices required to address the audit findings
- documenting a rectification plan specifying the required rectifications of non-conformances
- presenting reports and plans to client and relevant stakeholders.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- audit objectives, scope and focus
- auditing terminology
- audit processes
- audit sampling techniques
- frequency and random timing of audit events
- preparation of audit documentation
- pre-audit communications
- relevant audit information and sample documentation
- relevant codes of practice and Australian Standards
- relevant legislation and documentation
- on-site inspections
- targeting and documentation of specific tree works operations
- auditing of pruning, removal, transplanting, planting, tree protection techniques and arboricultural practices
- tree physiology, anatomy, pathology and environment
- inspection and assessment of tree physiology, anatomy, pathology and environment
- arboricultural works that may impact on the tree physiology, anatomy, pathology and environment
- non-arboricultural works that may impact on the tree or its environment
- determination of impact of non-arboricultural works
- documentation and legislation relevant to auditing works
- determination of extent of works with conformance to documentation and legislation
- identification of non-conformance
- assessment of extent and manner of non-conformance
- provision of feedback and findings of inspections to clients, contractors and stakeholders
- improvement, rectification and management of non-conformances

- notification of non-conformance
- provision of advice of non-conformance
- documentation of audit reports
- specification of tree management techniques and practices required to address audit findings
- methods of advising statutory authorities
- audit reporting methods
- documentation of an ongoing management plan
- specifications for required rectifications of non-conformances
- documentation of a rectification plan
- report and plan production and presentation.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
 - digital camera/phone camera
 - trees
- materials:
 - compliance and audit report form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB506 Prepare arborist reports

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare arborist reports with specific arboricultural content at consultant level.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work, to analyse and synthesise information and design and communicate solutions to complex problems. They provide professional services in arboricultural report writing involving tree assessment and risk, tree management, arboricultural impact, tree pathology and structural tree problems.

Preparing arboricultural reports involves the self-directed application of knowledge with substantial depth in some areas such as tree identification, tree assessment techniques and reporting methods.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Determine client brief and report limits	1.1 Determine the client brief and manage client expectations 1.2 Determine client need for evidentiary data records 1.3 Determine statutory requirements for report 1.4 Establish specific focus points within report topic 1.5 Establish report limits and assumptions 1.6 Determine arboricultural content required by evaluation of all relevant requirements and limitations 1.7 Determine the textual and visual content of report
2. Determine and collate evidentiary data	2.1 Research information about topic and specific focus points 2.2 Assess primary and secondary sources of research material 2.3 Evaluate information validity and reliability 2.4 Inspect and record details and observations of site, trees, location and matters relevant to focus points and topic 2.5 Record relevant visual evidence using photographic equipment 2.6 Obtain and record information from test results 2.7 Collate observations, test results, research material and inspection data into a body of evidentiary data 2.8 Backup and store data for later retrieval
3. Format the report document template	3.1 Determine presentation style of report to meet client and statutory outcomes 3.2 Determine requirements for specific document content and layout using accepted arboriculture industry conventions 3.3 Obtain necessary permissions for use of tables, diagrams or other copyright information 3.4 Utilise appropriate custom document templates, logo, tables, charts, and art required to produce word-processor documents 3.5 Insert required document elements such as title, page numbers, table of contents, footers and headers and watermark 3.6 Incorporate collated data, information and evidentiary data into formatted body of the report 3.7 Operate computer and software application to edit document for language use, text content, spelling, grammar and punctuation appropriate for consulting arborists
4. Formulate a conclusive determination and recommendations	4.1 Assess body of evidentiary data 4.2 Determine value of supporting and contradictory evidence 4.3 Use considered viewpoints to make an informed decision 4.4 Formulate a conclusive determination 4.5 Inform client whether or not determination can meet the client

Element	Performance criteria
	brief 4.6 Develop a set of recommendations based on that determination in accordance with the client brief
5. Prepare draft report	5.1 Prepare a draft document based on brief, method, observation, conclusion and recommendations system 5.2 Evaluate the impact of using active and passive voice 5.3 Seek feedback on prepared report 5.4 Respond to feedback and edit report based on feedback provided if applicable
6. Deliver the final report	6.1 Draft final sections of report document 6.2 Develop summary of report 6.3 Produce final version of arboricultural report 6.4 Deliver final report to client and statutory authority 6.5 Formulate a glossary of arboricultural terminology and industry jargon

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB506 Prepare arborist reports

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must produce a body of work compiling evidentiary data, research material, data, observations and test results into a stylised presentation of custom format using component industry conventions. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining the client brief and manage client expectations
- determining client need for evidentiary data records
- determining statutory requirements for report
- establishing specific focus points within report topic
- establishing report limits and assumptions
- determining arboricultural content required by evaluation of all relevant requirements and limitations
- determining the textual and visual content of report
- researching information about topic and specific focus points
- assessing primary and secondary sources of research material
- inspecting and recording details and observations of site, trees, location and matters relevant to focus points and topic
- recording relevant visual evidence using photographic equipment
- obtaining and recording information from test results
- collating observations, test results, research material and inspection data into a body of evidentiary data
- backing up and storing data for later retrieval
- determining presentation style of report to meet client and statutory outcomes
- determining requirements for specific document content and layout using accepted arboriculture industry conventions
- obtaining necessary permissions for use of tables, diagrams or other copyright information

- utilising appropriate custom document templates, logo, tables, charts, and art required to produce word-processor documents
- inserting required document elements such as title, page numbers, table of contents, footers and headers and watermark
- incorporating collated data, information and evidentiary data into formatted body of the report
- operating computer and software application to edit document for language use, text content, spelling, grammar and punctuation appropriate for consulting arborists
- assessing a body of evidentiary data
- determining value of supporting and contradictory evidence
- using considered viewpoints to make an informed decision
- formulating a conclusive determination
- informing client whether or not determination can meet the client brief
- developing a set of recommendations based on that determination in accordance with the client brief
- preparing a draft document based on brief, method, observation, conclusion and recommendations system
- evaluating the impact of using active and passive voice
- seeking feedback on prepared report
- responding to feedback and editing report based on feedback provided
- drafting final sections of report document
- developing summary of report
- producing final version of arboricultural report
- delivering final report to client and statutory authority
- formulating a glossary of arboricultural terminology and industry jargon.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- client briefs
- management of client expectations
- client need for evidentiary data records
- statutory reporting requirements
- specific focus points within report topics
- limits and assumptions of reports
- required arboricultural content
- textual and visual content of report
- information research
- assessment of primary and secondary sources of research material
- methods of determining information validity and reliability
- site inspections
- photographic equipment for recording of visual evidence

- collation of observations, test results, research material and inspection data into a body of evidentiary data
- data collection, collation, backup, storage and retrieval
- reporting and presentation styles for statutory and client outcomes
- requirements for specific document content and layout using accepted arboriculture industry conventions
- permissions for use of tables, diagrams or other copyright information
- custom document templates, logo, tables, charts, and art required to produce word-processor documents
- document elements such as title, page numbers, table of contents, footers and headers and watermark
- computer and software application to edit documents
- language use, text content, spelling, grammar and punctuation
- consulting arborist terminology
- assessment of a body of evidentiary data
- evaluation of supporting and contradictory evidence
- consideration of different viewpoints in making informed decisions
- decision-making processes
- formulation of conclusive determinations
- draft document preparation
- system of brief, method, observation, conclusion and recommendations
- evaluation of impact of using active and passive voice
- report editing based on feedback provided
- development of a report summary
- final report formulation, formatting and writing
- production of a glossary of arboricultural terminology and industry jargon.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - digital camera/phone camera
 - internet connection

- word processing software
- trees
- materials:
 - arborist report
 - glossary of arboricultural terminology

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB507 Generate tree plans using computer-aided design software

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to generate tree plans using computer-aided design software.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work, to analyse and synthesise information and design, and to communicate solutions to complex problems. Work is performed in accordance with Australian Standards and industry drawing protocols.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Confirm project and drawing requirements	1.1 Confirm project requirements for computer-aided design (CAD) drawings 1.2 Identify drawing requirements, purpose and scope and confirm

Element	Performance criteria
	with relevant project personnel
2. Create drawing template files to meet standard drawing requirements	2.1 Set up basic drawing environment 2.2 Create layering strategy as required 2.3 Create arboricultural and architectural library of standard detail and components 2.4 Create text and dimension styles 2.5 Create line types of different thicknesses to provide visual differentiation of plan elements 2.6 Create hatch patterns and types 2.7 Set up title blocks for different drawing sizes 2.8 Set up reference schedules as required
3. Create 2-D drawings	3.1 Use 2-D CAD software programs and functions to produce different types of 2-D drawings using appropriate layers as required 3.2 Import digital text and drawing files from other software applications into 2-D CAD drawings 3.3 Scan and save hard copy documents as correct file types to import into 2-D CAD drawings
4. Edit, measure and inspect drawing components	4.1 Delete or purge elements that are not required from drawings 4.2 Add notations to drawings as required 4.3 Add dimensions and scales to drawings as required 4.4 Use editing commands to modify drawing elements and text 4.5 Plot trees with precision 4.6 Differentiate visually trees to be retained, removed and transplanted 4.7 Calculate areas of tree protection zones (TPZ), encroachments and distances 4.8 Undertake quality control check of drawing
5. Print CAD drawings	5.1 Set page layout with appropriate scale and lineweights for the drawing file to suit printing requirements 5.2 Set print parameters for the printer 5.3 Print drawings on the correct media
6. Save and back up files	6.1 Create suitable file directories for the drawing project 6.2 Save drawing files for later retrieval and back up to specified drives or directories
7. Export files	7.1 Create drawing files and send to external personnel for use in different software applications 7.2 Create portable document format (PDF) files for relevant personnel to view completed drawings without using CAD

Element	Performance criteria
	software packages

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB507 Generate tree plans using computer-aided design software

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must produce tree protection plan drawing containing tree protection zones (TPZ) and encroachments, and perform area calculations using computer-aided design software (CAD).

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- confirming project requirements for computer-aided design (CAD) drawings
- identifying drawing requirements, purpose and scope and confirm with relevant project personnel
- setting up basic drawing environment
- creating layering strategy as required
- creating arboricultural and architectural library of standard detail and components
- creating text and dimension styles
- creating line types of different thicknesses to provide visual differentiation of plan elements
- creating hatch patterns and types
- setting up title blocks for different drawing sizes
- setting up reference schedules as required
- using 2-D CAD software programs and functions to produce different types of 2-D drawings using appropriate layers as required
- importing digital text and drawing files from other software applications into 2-D CAD drawings
- scanning and save hard copy documents as correct file types to import into 2-d CAD drawings
- deleting or purge elements that are not required from drawings

- adding notations to drawings as required
- adding dimensions and scales to drawings as required
- using editing commands to modify drawing elements and text
- plotting trees with precision
- differentiating visually trees to be retained, removed and transplanted
- calculating areas of tree protection zones (TPZ), encroachments and distances
- undertaking quality control check of drawing
- setting page layout with appropriate scale and lineweights for the drawing file to suit printing requirements
- setting print parameters for the printer
- printing drawings on the correct media
- creating suitable file directories for the drawing project
- saving drawing files for later retrieval and back up to specified drives or directories
- creating drawing files and send to external personnel for use in different software applications
- creating portable document format (PDF) files for relevant personnel to view completed drawings without using CAD software packages.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- project requirements
- types of drawings
- computer-aided design (CAD) drawings
- drawing requirements
- purpose of drawing
- scope of drawing
- project personnel
- drawing environment
- layers and layering strategy
- arboricultural library of standard detail and components
- architectural library of standard detail and components
- text and dimension styles
- line types of different thicknesses
- visual differentiation of plan elements
- hatch patterns and types
- title blocks for different drawing sizes
- reference schedules
- 2-D CAD software programs
- different types of 2-D drawings
- notations
- dimensions and scales

- editing commands
- plotting trees
- trees to be retained, removed and transplanted
- quality control check and document control
- page layout
- scale and lineweights
- drawing file types
- printers and printing requirements
- print parameters
- printing drawings
- correct media
- file directories and drives
- methods of saving files
- file retrieval
- file backup
- calculation of areas
- tree protection zones (TPZ)
- encroachments
- distances
- completed drawings
- portable document format (PDF).

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - CAD software
- materials:
 - tree plan drawings in print and file format

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB601 Examine and assess trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to examine and assess tree health, age, taxonomy, risk, amenity value and significance and compile a tree assessment report.

This unit applies to individuals with broad theoretical and technical knowledge of a specific area or a broad field of work and learning and cognitive, technical and communication skills to demonstrate autonomy, judgement and defined responsibility in undertaking complex work within broad parameters to provide specialist advice and functions.

The role involves the self-directed application of knowledge with substantial depth in areas such as tree identification, pathology and diagnostics, tree assessment and valuation techniques, tree risk assessment and reporting methods.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states & territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards.

Pre-requisite Unit

AHCARB403 Perform a ground-based tree defect evaluation*

*AHCARB302 Inspect trees for access and work***

AHCARB313 Identify trees

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine tree survey program requirements	1.1 Identify scope of survey in accordance with client needs 1.2 Determine client's risk threshold 1.3 Determine and document procedures for data capture 1.4 Identify, source and record all current data research relevant to survey requirements 1.5 Check equipment for assessing trees and prepare for use 1.6 Select, check and use personal protective equipment
2. Determine the tree dimensions and structure	2.1 Plot tree location on a device, drawing or plan of the site 2.2 Determine and record tree dimensions and structure 2.3 Measure tree height, spread and diameter-at-breast height (DBH) 2.4 Examine and record form of tree 2.5 Assess tree for asymmetry of canopy 2.6 Assess if tree has a lean and calculate the lean 2.7 Assess how form of crown relates to or is responsive to surrounding trees and structures 2.8 Determine the potential impact of wind loading of the tree
3. Record tree taxonomic features	3.1 Inspect tree and record fruit type and characteristics 3.2 Describe leaf morphology for shape, colour and size 3.3 Examine and record buds, branchlets, branches and bark 3.4 Inspect for and describe trichomes on lamina, petiole and branchlets 3.5 Describe and record floral characteristics of structure of inflorescence, location of the flower, flower colour, details of the flower parts present, absent or modified
4. Assess tree health issues	4.1 Examine and record the canopy density and distribution 4.2 Assess recorded leaf colour and size against a healthy specimen 4.3 Assess for the presence of epicormic shoots 4.4 Assess for dead tips or excessive numbers of dead branches 4.5 Examine roots, root crown, stem, branches and canopy for signs of biotic and abiotic disease 4.6 Evaluate and describe symptoms presenting on tree 4.7 Determine how presence of disease might be affecting tree 4.8 Recognise and record wounds to the tree 4.9 Consider size, location and cause of wounds

Element	Performance criteria
5. Assess age of trees and tree parts	5.1 Determine if species is uninodal or multimodal 5.2 Record the dimensions of the tree 5.3 Examine tree for evidence of growth increments including bud scars, sympodial growth and flush marks 5.4 Estimate average annual increase in diameter of sample of xylem stained as required 5.5 Research historic images of tree or trees of same species in similar environments 5.6 Provide a reasoned estimate of age of tree, tree part or wound
6. Assess trees for significance	6.1 Assess tree for indicators of habitat use 6.2 Assess tree for ecological significance 6.3 Assess tree for cultural significance 6.4 Assess tree for historical significance
7. Assess amenity value of trees	7.1 Evaluate amenity tree valuation methods 7.2 Consider strengths and weaknesses of each method 7.3 Determine amenity tree valuation method to be used 7.4 Collect and collate appropriate unit values and data 7.5 Calculate and record the amenity value of individual trees
8. Inspect and assess trees	8.1 Assess trees to determine their structure and stability 8.2 Give consideration to the tree's age, health, condition, habitat, wind loading, distribution of foliage, wound size and the potential impacts of proposed recommendations 8.3 Use testing equipment, where required, to detect decay, disease and scope of tree problems 8.4 Evaluate visual indications and causes of disease and record results
9. Carry out risk assessment	9.1 Use visual tree assessment (VTA) to identify hazards associated with the tree 9.2 Use basic diagnostic tools to confirm the presence and extent of hazards 9.3 Determine level of risk 9.4 Give consideration to qualification and quantification of tree risk 9.5 Compare the risk level against commonly published levels of risk from non-arboricultural activities and items 9.6 Determine controls required to mitigate risks in accordance with the client's pre-determined threshold 9.7 Document risk controls and recommendations for monitoring and review of risks
10. Compile a tree	10.1 Document diagnosis of tree problems with reference to the

Element	Performance criteria
assessment report	anatomy, physiology and pathology of the tree 10.2 Provide and record specific recommendations for remedial action for tree problems 10.3 Produce a tree assessment report that identifies hazardous trees, recommends appropriate remedial action, and determines appropriate risk controls 10.4 Prepare an expert witness statement if required 10.5 Deliver tree assessment report to client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCARB501A Assess trees.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB601 Examine and assess trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed inspecting and assessing a broad range of trees for identification, health, growth habit, structure, stability and indications of disease. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- identifying the scope of survey
- determining the client's risk threshold
- documentation of the data capture procedures
- identifying, sourcing and recording all current data research relevant to survey requirements
- checking equipment for assessing trees and prepare for use
- selecting, checking and using personal protective equipment
- plotting tree locations on a device, drawing or plan of the site
- determining the tree dimensions and structure
- measuring the tree height, spread and diameter-at-breast height (DBH)
- examining and recording form of tree
- assessing tree for asymmetry of canopy
- assessing if tree has a lean and calculate the lean
- assessing how form of crown relates to or is responsive to surrounding trees and structures
- determining the potential impact of wind loading of the tree
- inspecting tree and record fruit type and characteristics
- describing leaf morphology for shape, colour and size
- examining and recording buds, branchlets, branches and bark
- inspecting for and describing trichomes on lamina, petiole and branchlets
- describing and recording floral characteristics of structure of inflorescence, location of the flower, flower colour, details of the flower parts present, absent or modified
- examining and record the canopy density and distribution

- assessing recorded leaf colour and size against a healthy specimen
- assessing for the presence of epicormic shoots
- assessing for dead tips or excessive numbers of dead branches
- examining roots, root crown, stem, branches and canopy for signs of biotic and abiotic disease
- evaluating and describing symptoms presenting on tree
- determining how presence of disease might be affecting tree
- recognising and recording wounds to the tree
- considering size, location and cause of wounds
- determining if species is uninodal or multimodal
- recording the dimensions of the tree
- examining tree for evidence of growth increments including bud scars, sympodial growth and flush marks
- estimating average annual increase in diameter of sample of xylem stained as required
- researching historic images of tree or trees of same species in similar environments
- providing a reasoned estimate of age of tree, tree part or wound
- assessing tree for indicators of habitat use
- assessing tree for ecological significance
- assessing tree for cultural significance
- assessing tree for historical significance
- evaluating various amenity tree valuation methods
- considering strengths and weaknesses of each method
- determining amenity tree valuation method to be used
- collecting and collating appropriate unit values and data
- calculating and recording the amenity value of individual trees
- assessing trees to determine their structure and stability
- consideration of the tree's age, condition, habitat, wind loading, distribution of foliage, wound size and the potential impacts of proposed recommendations
- using testing equipment to detect decay, disease and scope of tree problems
- evaluating visual indications of disease and health issues in trees
- use of visual tree assessment (VTA) method to identify hazards
- use of basic diagnostic tools to confirm the presence and extent of hazards
- determining level of risk
- giving consideration to qualification and quantification of tree risk
- comparing the risk level against commonly published levels of risk from non-arboricultural activities and items
- determining controls required to mitigate risks in accordance with the client's pre-determined threshold
- documenting risk controls and recommendations for monitoring and review of risks
- documenting diagnoses of tree problems with reference to the anatomy, physiology and pathology of the tree
- recording specific recommendations for remedial action for tree problems

- producing a tree assessment report that identifies a hazardous tree and contains recommendations for appropriate remedial actions and risk controls
- preparing an expert witness statement
- use of industry standard terminology to describe arboriculture and the work environment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- risk thresholds
- data capture procedures
- survey requirements
- tree assessment equipment
- plotting methods on devices, drawings and plans
- tree morphology attributes: fruit type and characteristics, leaf morphology for shape, colour and size, trichomes on lamina, petiole and branchlets, floral characteristics of structure of inflorescence, location of the flower, flower colour, details of the flower parts present, absent or modified, buds, branchlets, branches and bark
- canopy density and distribution
- comparison of leaf colour and size against a healthy specimen
- epicormic shoots
- examination of roots, root crown, stem, branches and canopy for signs of biotic and abiotic disease
- disease symptoms
- affect of disease on tree
- tree dimensions and structure
- tree height, spread and diameter-at-breast height (DBH)
- form and morphology of tree
- symmetry and asymmetry of canopy
- calculation of tree lean
- relationship of form of crown to surrounding trees and structures
- responsiveness of form of crown to surrounding trees and structures
- determination the potential impact of wind loading of the tree
- tree wound recognition, size, location and cause
- uninodal and multimodal tree species
- growth increments including bud scars, sympodial growth and flush marks
- estimation average annual increase in tree diameter
- xylem staining
- research of historic images of tree or trees of same species in similar environments
- assessment of tree indicators of habitat use
- assessment of tree ecological significance
- assessment of tree cultural significance
- assessment of tree historical significance
- evaluation of methods of amenity tree valuation

- calculation of amenity tree value of individual trees
- tree structure and stability
- tree assessment attributes: tree's identification, age, health, condition, habitat, wind loading, distribution of foliage, wound size and the potential impacts of proposed recommendations
- testing equipment to detect decay, disease and scope of tree problems
- visual indications and symptoms of disease and health issues
- tree diseases
- visual tree assessment (VTA)
- methods of detecting decay and structural defects in trees
- causes of instability, decay, damage and stress in trees
- use of basic diagnostic tools
- identification and extent of tree hazards
- methods of determination of levels of risk
- quantification and qualification of tree risk
- commonly published levels of risk from non-arboricultural activities and items
- controls required to mitigate risks in accordance with the client's pre-determined threshold
- diagnoses of tree problems
- tree anatomy, physiology and pathology
- remedial action of tree problems
- production of a tree assessment report that identifies hazardous trees, recommends appropriate remedial action, and determines appropriate risk controls
- preparation of an expert witness statement.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
 - digital camera with macro
 - personal protective equipment (PPE)
 - diagnostic tools including sounding hammer, trowel, probe, cordless drill

- cross-sectioned defects and diseases
- soil testing equipment
- basic digital dissection microscope 10 -100x
- compound microscope
- microtome, staining and slide mounting equipment
- slides and coverslips
- temporary/permanent mountant
- histochemical stains
- materials:
 - tree assessment report
 - tree profile and benefits form
 - disease profile form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB602 Diagnose tree diseases

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to diagnose tree diseases including diseases of palms and other woody monocotyledons.

This unit applies to individuals with broad theoretical and technical knowledge of a specific area or a broad field of work and learning and cognitive, technical and communication skills to demonstrate autonomy, judgement and defined responsibility in undertaking complex work within broad parameters to provide specialist advice and functions.

The role involves the self-directed application of specialised knowledge in arboriculture with substantial depth in areas such as with substantial depth in areas such as disease diagnostics and disease classification and management.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Assess environmental impact	1.1 Identify the tree and determine its region of origin 1.2 Determine seasonal growth stages of the tree 1.3 Ascertain current and past cultural practices 1.4 Determine characteristics of growing environment affecting growth of specific tree species 1.5 Identify environmental and cultural factors predisposing tree to disease 1.6 Determine and assess relevant physical and chemical properties of the soil or growing media
2. Identify diseased trees	2.1 Determine impact of disease type on tree parts and systems 2.2 Use industry standard terminology to describe disease attributes in relation to tree anatomy, physiology, pathology and taxonomy 2.3 Develop a glossary of disease terminology 2.4 Consider natural defence systems of trees against major disease types 2.5 Determine disease groups according to a disease classification guide 2.6 Interpret signs and symptoms of disease to identify which trees are diseased
3. Diagnose tree disease	3.1 Record symptoms and signs of disease using accepted nomenclature 3.2 Collate samples and evidence into a reference collection 3.3 Determine disease type according to a disease classification guide 3.4 Determine identification of macro biotic disease to family level 3.5 Prepare specimens of microbiotic diseases for microscopic examination 3.6 Collect, package and dispatch specimens for specialist diagnosis or laboratory testing where required
4. Provide a prognosis	4.1 Determine the current health and energy reserves of the tree 4.2 Assess the severity and extent of the disease 4.3 Research the virulence of the disease on the specific host 4.4 Determine the phenology of the host and the disease 4.5 Research and consider the lag time of management options 4.6 Consider influences of environmental conditions on host, disease and management options 4.7 Provide an informed prognosis in writing and verbally
5. Develop, document and monitor the management program	5.1 Research management options such as Integrated Pest management (IPM) and recommend appropriate options 5.2 Develop a disease management program within IPM guidelines

Element	Performance criteria
	5.3 Record and document tree diseases and management programs in a report 5.4 Monitor management plans and modify or refine as needed

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCARB503 Diagnose tree diseases.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB602 Diagnose tree diseases

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed diagnosing and recording diseases of trees, and developing, monitoring and documenting a report on a tree disease management plan.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- identifying the tree and determining its region of origin
- determining seasonal growth stages of the tree
- ascertaining current and past cultural practices
- determining characteristics of the growing environment affecting the growth of a specific tree species
- identifying environmental and cultural factors that predispose the tree to disease
- determining and assessing the relevant physical and chemical properties of the soil or growing media
- determining impact of disease type on tree parts and systems
- use of industry standard terminology to describe disease aspects of tree anatomy, physiology, pathology and taxonomy
- developing a glossary of disease terminology
- considering natural defence systems of trees against major disease types
- determining disease groups according to a disease classification guide
- interpreting signs and symptoms of disease to identify which trees are diseased
- recording symptoms and signs of disease using accepted nomenclature
- collating samples and evidence into a reference collection
- determining disease type according to a disease classification guide
- determining identification of macro biotic disease to family level
- preparing specimens for microscopic examination of microbiotic diseases

- collecting, package and dispatch specimens for specialist diagnosis or laboratory testing where required
- determining current health and energy reserves of the tree
- assessing severity and extent of the disease
- researching virulence of the disease on the specific host
- determining phenology of the host and the disease
- researching and considering lag time of management options
- considering influences of environmental conditions on host, disease and management options
- providing an informed prognosis in writing and verbally
- researching management options such as Integrated Pest Management (IPM) and recommending appropriate options
- developing a disease management program within IPM guidelines
- recording and documenting tree diseases and management programs in a report
- monitoring management plans and modifying or refining as needed
- compiling a disease reference collection
- use of industry standard terminology to describe disease aspects of tree anatomy, physiology, pathology and taxonomy.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- disease classification guides
- virulence, phenology, prognosis and disease severity and extent
- critical systems in the tree; physiologically, anatomically and biochemically
- patterns of host – disease interaction for each major disease type
- tree nutrition issues associated with the soil or media
- identification of signs and symptoms of tree health problems
- determination of possible and probable physiological, anatomical and biochemical impacts on the tree
- disease detection methods, taxonomic identification, life cycle stages and characteristics of the specific horticultural trees of the organisation
- natural defence systems of trees
- chemical use, toxicity and compatibility with target trees, soil and environmental characteristics of the horticultural region
- tree anatomy, physiology, pathology and taxonomy
- seasonal growth anatomy of the tree
- primary cellular and anatomical structures of the tree
- preparation of specimens of microbiotic diseases for microscopic examination
- horticultural function, cultural and performance requirements and characteristics of the trees or other woody plants being considered
- chemical, cultural and biological control methods as part of an Integrated Pest Management strategy

- methods of providing a reasoned prognosis
- the growing requirements and characteristics of trees
- the impact of the growing environment on tree health
- how to research information about tree health problems, diagnoses and remedial treatment available
- nomenclature of symptoms and disease signs
- industry standard terminology to describe disease attributes in relation to tree anatomy, physiology, pathology and taxonomy
- applicable legislative requirements.

Assessment Conditions

Performance must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
 - digital camera with macro
 - diagnostic tools including sounding hammer, trowel, probe, cordless drill
 - soil testing equipment
 - basic digital dissection microscope 10 -100x
 - compound microscope
 - microtome, staining and slide mounting equipment
 - slides and coverslips
 - temporary/permanent mountant
 - histochemical stains
 - trees without diseases
 - trees with biotic diseases
 - trees with abiotic diseases

- cross-sectioned defects and diseases
- materials:
 - disease management plan
 - disease reference collection
 - glossary of disease terminology

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB603 Interpret diagnostic test results

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to interpret diagnostic test results and evaluate and critique the testing methods and results.

This unit applies to individuals with broad theoretical and technical knowledge of a specific area or a broad field of work and learning and cognitive, technical and communication skills to demonstrate autonomy, judgement and defined responsibility in undertaking complex work within broad parameters to provide specialist advice and functions.

The role involves the self-directed application of specialised knowledge in tree anatomy, physiology, pathology, tree dynamics and the edaphic environment with substantial depth in areas such as diagnostic tool application methods and analysis of diagnostic test results.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Compile diagnostic tool knowledge requirements	1.1 Compile a portfolio of sample reports of diagnostic test results 1.2 Compile peer reviewed papers on the use of each diagnostic tool 1.3 Review the diagnostic tool specifications and user manuals 1.4 Research output ranges for each diagnostic tool 1.5 Identify key thresholds and benchmarks 1.6 Determine suitability of tool selection for purpose of test
2. Analyse the data and testing methods	2.1 Identify and evaluate testing methods used 2.2 Assess relevance, benefits and limitations of methodology used 2.3 Determine assumptions used 2.4 Determine currency of the equipment, software or system used 2.5 Access raw data and testing evidence where available 2.6 Verify data relevance and accuracy 2.7 Review references cited in the report 2.8 Record non-conforming practices and treatments 2.9 Identify instances of incorrect application of diagnostic tools 2.10 Highlight unsupported statements and factual errors 2.11 Detail significant omissions, errors and ambiguities 2.12 Detail inconsistencies and errors of logic 2.13 Identify variances to specifications 2.14 Detail incorrect use of arboricultural terminology
3. Evaluate and critique test results	3.1 Assess the suitability of the testing process as fit for purpose 3.2 Analyse the test results 3.3 Compare evaluation with original interpretation 3.4 Consider and account for anomalies 3.5 Determine the validity of outcomes of original report 3.6 Develop substantiated positions to inform critical analysis of test results 3.7 Determine further testing required to verify or falsify results 3.8 Document feedback on original results
4. Prepare critique document the report	4.1 Compile the analysis 4.2 Review the completeness and accuracy of the analysis 4.3 Record analysis outcomes and rationale 4.4 Document the analytical processes 4.5 Provide alternative analysis and conclusion 4.6 Document critique in a report 4.7 Present report in agreed format and within agreed timelines

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB603 Interpret diagnostic test results

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

It is an industry requirement that competency in this unit requires the analysis and critique of a minimum of five different diagnostic tool test results. The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- compiling a portfolio of sample reports of diagnostic test results including: dynamic and static loading, drill resistance measurement device, sap flow measurements, electronic impedance, chlorophyll fluorescence, increment core, sonic tomography, radar imaging system, bulk density, laboratory, soil test and pH tests
- compiling peer reviewed papers on the use of each diagnostic tool
- reviewing the diagnostic tool specifications and user manuals
- researching output ranges for each diagnostic tool
- identifying key thresholds and benchmarks
- determining suitability of tool selection for purpose of test
- identifying and evaluating testing methods used
- assessing relevance, benefits and limitations of methodology used
- determine assumptions used
- determining currency of the equipment, software or system used
- accessing raw data and testing evidence where available
- verifying data relevance and accuracy
- reviewing references cited in the report
- recording non-conforming practices and treatments
- identifying instances of incorrect application of diagnostic tools
- highlighting unsupported statements and factual errors
- detailing significant omissions, errors and ambiguities
- detailing inconsistencies and errors of logic
- identifying variances to specifications

- detailing incorrect use of arboricultural terminology
- assessing the suitability of the testing process as fit for purpose
- analysing the results
- comparing evaluation with original interpretation
- considering and account for anomalies
- determining the validity of outcomes of original report
- develop substantiated positions to inform critical analysis of test results
- determining further testing required to verify or falsify results
- documenting feedback on original results
- compiling the analysis
- reviewing the completeness and accuracy of the analysis
- recording analysis outcomes and rationale
- documenting the analytical processes
- providing alternative analysis and conclusion
- documenting critique in a report
- presenting report in agreed format and within agreed timelines
- use of industry standard terminology to describe diagnostic tools and tests.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- portfolio of sample reports of diagnostic test results
- peer reviewed papers on the use of each diagnostic tool
- diagnostic tool specifications
- user manuals
- output ranges
- key thresholds
- benchmarks
- suitability of tool selection
- purpose of test
- testing methods
- methodology
- raw data
- testing evidence
- cited references
- data relevance
- data accuracy
- non-conforming practices
- non-conforming treatments
- unsupported statements
- factual errors
- significant omissions, errors and ambiguities

- variances to specifications
- incorrect use of arboricultural terminology
- suitability of the testing process
- fit for purpose
- analysis of results
- anomalies
- validity of outcomes
- verification and falsification of results
- alternative analysis
- critiquing.

Assessment Conditions

It is an industry requirement that competency in this unit requires the analysis and critique of a minimum of five different diagnostic tool test results.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - statistical software
 - internet connection
- materials:
 - critique of test results
 - portfolio of sample reports of diagnostic test results

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB604 Measure and improve the performance of urban forests

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to measure and improve the performance of trees.

This unit applies to individuals with broad theoretical and technical knowledge of a specific area or a broad field of work and learning and cognitive, technical and communication skills to demonstrate autonomy, judgement and defined responsibility in undertaking complex work within broad parameters to provide specialist advice and functions.

The role involves the self-directed application of specialised knowledge in arboriculture with substantial depth in areas of tree performance and carbon sequestration.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Research urban forest practices and applications	1.1 Research urban forest case studies and management reports 1.2 Review best management practices in urban forest planning and management 1.3 Research applications and functional tools measuring benefits of urban forests
2. Analyse and report on urban forest benefits	2.1 Analyse social benefits of urban forests 2.2 Analyse psychological benefits of urban forests 2.3 Analyse environmental benefits of urban forests 2.4 Document evidence-based research into a preliminary report on benefits of urban forests
3. Determine values of urban forest benefits	3.1 Conduct sampling analysis of an urban forest 3.2 Determine required sample size to assess total tree population 3.3 Determine accuracy of sample size 3.4 Calculate canopy cover, total carbon storage, annual carbon dioxide sequestration, rainfall interception, air pollution removal, energy savings benefit, environmental benefits and amenity benefits 3.5 Identify base financial value for each functional benefit 3.6 Calculate financial values of functional and environmental benefits of current tree population 3.7 Determine benefits of heat island modification of urban areas 3.8 Document a preliminary report on total asset valuation of an urban forest
4. Analyse and compile results	4.1 Analyse urban forest structure and functions 4.2 Describe urban tree population half-life, vacant planting ratio, species distribution and population diversity 4.3 Estimate life expectancy of tree population 4.4 Compile results of urban forest analysis
5. Document a report on improvement of urban forests	5.1 Identify urban forest issues within tree population sample area 5.2 Determine recommendations for tree species and diversity 5.3 Determine extent of current tree planting and replacement programs 5.4 Determine volume and rate of planting programs required for improvements to urban forest performance 5.5 Determine required modifications to planting practices 5.6 Determine targets for urban forest improvement 5.7 Document a report on urban forest performance that provides recommendations for improvement of urban forests

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB604 Measure and improve the performance of urban forests

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- researching urban forest case studies and management reports
- reviewing best management practices in urban forest planning and management
- researching applications and functional tools measuring benefits of urban forests
- analysing social benefits of urban forests
- analysing psychological benefits of urban forests
- analysing environmental benefits of urban forests
- documenting evidence-based research into a preliminary report on benefits of urban forests
- conducting sampling analysis of an urban forest
- determining required sample size to assess total tree population
- determining accuracy of sample size
- calculating canopy cover, total carbon storage, annual carbon dioxide sequestration, rainfall interception, air pollution removal, energy savings benefit, environmental benefits and amenity benefits
- identifying base financial value for each functional benefit
- calculating financial values of functional and environmental benefits of current tree population
- determining benefits of heat island modification of urban areas
- documenting a preliminary report on total asset valuation of an urban forest
- analysing urban forest structure and functions
- describing urban tree population half-life, vacant planting ratio, species distribution and population diversity
- estimating life expectancy of tree population
- compiling results of urban forest analysis

- identifying urban forest issues within tree population sample area
- determining recommendations for tree species and diversity
- determining extent of current tree planting and replacement programs
- determining volume and rate of planting programs required for improvements to urban forest performance
- determining required modifications to planting practices
- determining targets for urban forest improvement
- documenting a report on urban forest performance that provides recommendations for improvement of urban forests.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- urban forest case studies
- urban forest management reports
- best management practices in urban forest planning and management
- applications and functional tools measuring benefits of urban forests
- social benefits of urban forests
- psychological benefits of urban forests
- environmental benefits of urban forests
- evidence-based research
- analysis of sampling of an urban forest
- requirements of sample sizes to assess total tree populations
- accuracy of sample size
- calculations of canopy cover, total carbon storage, annual carbon dioxide sequestration, rainfall interception, air pollution removal, energy savings benefit, environmental benefits and amenity benefits
- base financial value for functional benefits of urban forests
- calculations of financial values of functional and environmental benefits of tree populations
- benefits of heat island modification of urban areas
- total asset valuation of an urban forest
- urban forest structure and functions
- urban tree population half-life, vacant planting ratio, species distribution and population diversity
- life expectancy of tree population
- urban forest analysis
- identification of urban forest issues within tree population sample areas
- recommendations for tree species and diversity
- tree planting and replacement programs
- volume and rate of planting programs
- modifications to planting practices
- targets for urban forest improvement.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
- computer
- word processing software
- statistical software
- internet connection
- measurement and data collection tools
- materials:
- report on urban forest performance

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB605 Provide consultation in a legal framework

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide consultation in a legal framework within an arboriculture context.

This unit applies to individuals with broad theoretical and technical knowledge of a specific area or a broad field of work and learning and cognitive, technical and communication skills to demonstrate autonomy, judgement and defined responsibility in undertaking complex work within broad parameters to provide specialist advice and functions.

The role involves the self-directed application of specialised knowledge in arboriculture with substantial depth in areas such as legislation, legal systems and processes and expert witness requirements.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Analyse the legal context	1.1 Determine legislation and relevant cases applying to trees within specialist consulting areas of work 1.2 Review and analyse the relevant legislation, statutory regulations, environmental planning instruments in state, territory and federal jurisdictions in relation to entities pertaining to trees and interactions with people, property, environment and the arboriculture industry 1.3 Apply detailed knowledge of legal and ethical standards, processes and practices, responsibilities, constraints and issues relating to own professional practice 1.4 Use common legal terms associated within the consultant's area of practice with a clear understanding of their meaning and implications
2. Analyse precedent cases to determine advice outcomes	2.1 Analyse the jurisdiction of tree matters relevant to specific cases 2.2 Apply knowledge of relevant court systems, common law, statute law, civil law, law of torts, and precedents to strategies and management of client needs 2.3 Seek and review relevant precedents in law and published case studies 2.4 Determine appropriate statutes and supporting precedent cases 2.5 Provide arboricultural information based on the legal context 2.6 Determine alternative courses of action, and legal and non-legal consequences, and discuss with client 2.7 Provide advice within the context of statutes and precedent cases
3. Reviewing developing and applying policy knowledge	3.1 Analyse and review policy documents in light of legislation and relevant cases 3.2 Prepare policy documents based on legislation and relevant cases 3.3 Determine areas of uncertainty in policy documents 3.4 Seek appropriate legal advice
4. Prepare expert report	4.1 Develop expertise and specialised knowledge in arboriculture 4.2 Follow statutory framework to give advice and work as an expert 4.3 Complete mandatory court requirements of specifications for content of expert reports 4.4 Record all observations and test results with precision 4.5 State assumptions underpinning policy documents 4.6 Substantiate all opinions using external authorities where possible 4.7 Prepare and provide a detailed evidentiary expert report
5. Provide expert evidence	5.1 Confirm status as independent and unbiased provider of expert evidence consistent with professional practice 5.2 Read and comply with expert witness code of conduct

Element	Performance criteria
	5.3 Prepare for the particular jurisdiction and matter at hand 5.4 Prepare evidence based on factual data, documented observations and results and complying with the rules of evidence 5.5 Provide oral evidence and documented report as required 5.6 Assist the court impartially on matters relevant to the expert witness's area of expertise 5.7 Seek and provide clarification on areas of uncertainty

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB605 Provide consultation in a legal framework

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining legislation and relevant cases applying to trees within specialist consulting areas of work
- reviewing and analysing the relevant legislation, statutory regulations, environmental planning instruments in state, territory and federal jurisdictions in relation to entities pertaining to trees and interactions with people, property, environment and the arboriculture industry
- applying detailed knowledge of legal and ethical standards, processes and practices, responsibilities, constraints and issues relating to own professional practice
- using common legal terms associated within the consultant's area of practice with a clear understanding of their meaning and implications
- analysing the jurisdiction of tree matters relevant to specific cases
- applying knowledge of relevant court systems, common law, statute law, civil law, law of torts, and precedents to strategies and management of client needs
- seeking and reviewing relevant precedents in law and review published case studies
- determining appropriate statutes and supporting precedent cases
- providing arboricultural information based on the legal context
- determining alternative courses of action, and legal and non-legal consequences, and discuss with client
- providing advice within the context of statutes and precedent cases
- analyzing and reviewing policy documents in light of legislation and relevant cases
- preparing policy documents based on legislation and relevant cases
- determining areas of uncertainty in policy documents
- seeking appropriate legal advice
- developing expertise and specialised knowledge in arboriculture

- following statutory framework to give advice as an expert
- confirming status as independent and unbiased provider of expert evidence within witness code of conduct programs
- recording all observations and test results with precision
- stating assumptions underpinning policy documents
- substantiating opinions using external authorities where possible
- preparing and providing a detailed evidentiary report
- preparing for the particular jurisdiction and matter at hand
- preparing evidence based on factual data, documented observations and results and complying with the rules of evidence
- providing oral evidence and respond to questions impartially
- seeking and providing clarification on areas of uncertainty.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant legislation, statutory regulations, environmental planning instruments in state, territory and federal jurisdictions in relation to entities pertaining to trees and interactions with people, property, environment and the arboriculture industry
- court systems, common law, statute law, civil law, law of torts, and precedents to strategies and management of client needs
- detailed knowledge of legal and ethical standards, processes and practices, responsibilities, constraints and issues relating to own professional practice
- relevant precedents in law and published case studies
- arboricultural information based on the legal context
- expertise and specialised knowledge in arboriculture
- common legal terms associated with within the consultants area of practice with a clear understanding of their meaning and implications
- preparation of policy documents based on legislation and relevant cases
- preparation of detailed evidentiary reports.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
- materials:
 - expert witness report
 - glossary of legal terminology

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB606 Develop an operational tree management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop an operational tree management plan.

This unit applies to individuals with broad theoretical and technical knowledge of a specific area or a broad field of work and learning and cognitive, technical and communication skills to demonstrate autonomy, judgement and defined responsibility in undertaking complex work within broad parameters to provide specialist advice and functions.

The role involves the self-directed application of specialised knowledge in arboriculture with substantial depth in areas such as tree management, tree policy and statutes and local planning laws.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Determine strategic context	1.1 Determine the specific operational area for management plan 1.2 Determine the objectives, performance targets and intended outcomes of the management plan 1.3 Source policy from tree policy documentation 1.4 Determine the geographical area and other limits of plan 1.5 Determine the history and cultural heritage of the area covered by the plan
2. Determine legislative framework	2.1 Determine land use of the area 2.2 Determine the relevant state and local government acts, zoning and planning controls, development and planning laws noting requirements for disability discrimination and companion animals 2.3 Determine ownership of the area
3. Determine stakeholders	3.1 Determine key stakeholders and community groups 3.2 Determine core objectives for trees and area 3.3 Determine current and permissible usage of area
4. Determine tree resources	4.1 Determine trees for management 4.2 Determine assessments required such as tree health, hazards, site conditions, soils 4.3 Define and collect data required for operational management 4.4 Assess the tree species, type, diversity and distribution at required detail 4.5 Determine position of planting locations 4.6 Determine selection criteria for replacement trees 4.7 Determine tree removal and tree replacement processes 4.8 Establish tree inventory
5. Determine financial resources	5.1 Determine financial resources available 5.2 Determine management requirements of trees 5.3 Estimate cost of works required for operational program 5.4 Determine priority of works incorporating risk into determination 5.5 Determine frequency of pruning cycles required 5.6 Determine personnel, supplies, equipment and other resources required 5.7 Determine existing contractual, leasing and licensing obligations
6. Develop documentation	6.1 Develop operational tree plan documentation 6.2 Develop operational procedures to achieve required objectives 6.3 Develop draft operational tree management plan
7. Incorporate feedback and prepare plan	7.1 Prepare draft plan for public exhibition 7.2 Notify stakeholders and community groups and obtain feedback

Element	Performance criteria
	7.3 Review and evaluate feedback 7.4 Amend draft plan and incorporate feedback 7.5 Prepare final version of operational tree management plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Tree management plans must include knowledge of operational areas of:

- tree inspections and assessments
- tree selection and planting
- tree management
- tree maintenance
- tree protection
- tree removal
- risk identification and mitigation
- infrastructure protection
- habitat protection
- power line clearance
- community and private trees,
- pest and disease control
- significant trees
- trees of a selected geographic area

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB606 Develop an operational tree management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining the specific operational area for management plan
- determining the objectives, performance targets and intended outcomes of management plan
- sourcing policy from tree policy documentation
- determining the geographical area and other limits of plan
- determining the history and cultural heritage of the area covered by the plan
- determining land use of the area
- determining the relevant state and local government acts, zoning and planning controls, development and planning laws noting requirements for disability discrimination and companion animals
- determining ownership of the area
- determining key stakeholders and community groups
- determining core objectives for trees and area
- determining current and permissible usage of area
- determining trees for management
- determining assessments required such as tree health, hazards, site conditions, soils
- defining and collect data required for operational management
- assessing the tree species, type, diversity and distribution at required detail
- determining position of planting locations
- determining selection criteria for replacement trees
- determining tree removal and tree replacement processes
- establishing tree inventory
- determining financial resources available

- determining management requirements of trees
- estimating cost of works required for operational program
- determining priority of works incorporating risk into determination
- determining frequency of pruning cycles required
- determining personnel, supplies, equipment and other resources required.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- operational areas for formulating a tree management plan
- objective, performance targets and intended outcomes
- tree management planning
- tree policy documentation
- history and cultural heritage
- land ownership
- land use
- state and local government acts
- zoning and planning controls,
- development & planning laws
- disability discrimination
- companion animals
- value
- maintenance needs
- frequency of pruning cycles
- contractual, leasing and licensing obligations
- infrastructure protection
- data collection
- data collection
- tree inventory
- tree species, type, diversity and distribution
- soils analysis
- planting locations
- selection criteria
- replacement trees
- stakeholders
- community groups
- permissible usage
- tree protection plan
- operational procedures
- tree removal
- tree replacement
- street tree planting

- tree inspections and assessments
- tree pruning operations
- power line clearance
- habitat protection
- pesticide use
- draft and final documents
- print media
- public submissions
- public hearing
- operational tree management plan.

Assessment Conditions

It is an industry requirement for the assessment of the operational plans as listed in the Range of Conditions section of this unit of competency.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - statistical software
 - internet connection
- materials:
 - tree inventory
 - operational tree management plan

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB607 Review and develop strategic tree policy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and review tree management policy and relates to the formulation of strategic policy and subsequent policy determinations.

This unit applies to individuals with broad theoretical and technical knowledge of a specific area or a broad field of work and learning and cognitive, technical and communication skills to demonstrate autonomy, judgement and defined responsibility in undertaking complex work within broad parameters to provide specialist advice and functions.

The role involves the self-directed application of specialised knowledge in arboriculture with substantial depth in areas such as tree management, tree policy and statutes and local planning laws.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Analyse the system	1.1 Identify stakeholders, consult and establish stakeholder needs 1.2 Research historic and current tree policies 1.3 Analyse statutory context and policy context of the current or proposed tree policy 1.4 Research current and historic tree management activities 1.5 Analyse current industry tree policy models 1.6 Evaluate comparative tree methodologies and systems 1.7 Research current policy and strategic information to inform and develop policy
2. Define policy objectives	2.1 Identify key management objectives and management metrics 2.2 Establish benchmarks 2.3 Analyse existing policies, procedures and systems for compliance with policy planning requirements 2.4 Evaluate conflicting stakeholder needs 2.5 Determine tree management strategies 2.6 Define policy reflecting strategic objectives of organisation 2.7 Define strategic objectives of the policy 2.8 Develop and communicate change management strategies 2.9 Make recommendations for policy options
3 Define legal parameters	3.1 Determine legal parameters, statutes and local planning laws 3.2 Determine if policy is included or referred to in statutory documents 3.3 Seek advice about legal implications of policy
4. Define context and limitations of tree policy	4.1 Determine parameters of policy 4.2 Determine and record localised soil types, rainfall infiltration and runoff 4.3 Compile database of local and indigenous tree species 4.4 Compile database of exotics that perform well 4.5 Create list of preferred and desired species 4.6 Determine extent and type of tree data from tree inventory 4.7 Set diversity goals for tree species and tree families
5. Develop tree policy	5.1 Develop tree policy to meet strategic objectives 5.2 Develop and communicate procedures to implement policy 5.3 Develop policy determinations for hazard identification and mitigation, significant trees, tree selection, tree replacement, street tree planting, tree removal, tree inspections and assessments, tree pruning operations, power line clearance,

Element	Performance criteria
	habitat protection, infrastructure protection and pest and disease control as required 5.4 Develop draft of strategic tree policy 5.6 Promote tree policy and expected outcomes to key stakeholders 5.7 Seek feedback from stakeholders 5.8 Review and amend policy 5.9 Develop tree policy documentation 5.10 Develop compliance programs in policy documentation 5.11 Implement strategies for continuous improvement
6. Review tree policy implementation	6.1 Publish final tree policy documentation 6.2 Use policy to guide development of operational tree management plans 6.3 Investigate and document implementation outcomes of policy 6.4 Provide feedback to key personnel and stakeholders 6.5 Monitor records for remedial action and to improve performance 6.6 Modify policy and or procedures as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB607 Review and develop strategic tree policy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- identifying stakeholders, consult and establish stakeholder needs
- researching historic and current tree policies
- analysing statutory context and policy context of the current or proposed tree policy
- researching current and historic tree management activities
- analysing current industry tree policy models
- evaluating comparative tree methodologies and systems
- researching current policy and strategic information to inform and develop policy
- identifying key management objectives and management metrics
- establishing benchmarks
- analysing existing policies, procedures and systems for compliance with policy planning requirements
- evaluating conflicting stakeholder needs
- determining tree management strategies
- defining policy reflecting strategic objectives of organisation
- defining strategic objectives of the policy
- developing and communicate change management strategies
- making recommendations for policy options
- determining legal parameters, statutes and local planning laws
- determining if policy is included or referred to in statutory documents
- seeking advice about legal implications of policy
- determining parameters of policy
- determining and record localised soil types, rainfall infiltration and runoff
- compiling database of local and indigenous tree species

- compiling database of exotics that perform well
- creating list of preferred and desired species
- determining extent and type of tree data from tree inventory
- setting diversity goals for tree species and tree families
- developing tree policy to meet strategic objectives
- developing and communicating procedures to implement policy
- developing policy determinations for hazard identification and mitigation, significant trees, tree selection, tree replacement, street tree planting, tree removal, tree inspections and assessments, tree pruning operations, power line clearance, habitat protection, infrastructure protection and pest and disease control as required
- developing draft of strategic tree policy
- promoting tree policy and expected outcomes to key stakeholders
- seeking feedback from stakeholders
- reviewing and amending policy
- developing tree policy documentation
- developing compliance programs in policy documentation
- implementing strategies for continuous improvement
- use of industry standard terminology to describe tree policy.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- current and historic tree management activities
- historic and current tree policies
- tree policy models
- benchmarks
- management objectives
- management metrics
- strategic objectives
- key stakeholders
- tree management strategies
- legal parameters, statutes and local planning laws
- compliance with policy planning requirements
- legal implications of policy
- localised soil types, rainfall infiltration and runoff
- databases
- tree inventory
- policy determinations for hazard identification and mitigation, significant trees, tree selection, tree replacement, street tree planting, tree removal, tree inspections and assessments, tree pruning operations, power line clearance, habitat protection, infrastructure protection and pest and disease control
- development of draft and final documents.

Assessment Conditions

It is an industry requirement for competency in this unit that assessment includes construction of a database that must contain a minimum of twenty (20) trees that are the preferred and desired species highly suitable for local use, and incorporating intensive tree profiles detailing attributes of the location, taxonomic characteristics, edaphic and environmental preferences and limitations of the tree. The database must include local, indigenous and exotic tree species.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - statistical software
 - internet connection
- materials:
 - tree policy documentation
 - tree profile and benefits form
 - database of local, indigenous and exotic tree species

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB701 Analyse tree biomechanics

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify and analyse aspects of tree biomechanics that affect the physical loads and strengths of trees, branches and anchorage in the ground; understand the assessment of tree strength and the loads that occur; and assess factors that can weaken the tree and are likely to increase the chance of failure.

This unit applies to individuals with broad and coherent theoretical and technical knowledge with depth in one or more disciplines or areas of practice and cognitive, technical and communication skills to demonstrate autonomy, well developed judgement and responsibility in undertaking complex self-directed work and learning to provide specialist advice and functions.

The role involves the self-directed application of specialised knowledge in arboriculture with substantial depth in areas such as with substantial depth in areas such as tree statics, dynamics, wind loading and structural failure.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine existing physical loads and strengths of trees, branches and anchorage	1.1 Determine existing physical loads affecting trees 1.2 Identify areas of high stress on trees and the factors that affect these areas of high stress 1.3 Assess root plate environment including depth and consistency of soil, spatial limitations and history of site excavations 1.4 Assess prior tree pruning operations to branches and roots 1.5 Determine extent of decay and damage of trunk and root system 1.6 Assess strength and material properties of structural wood, particularly in areas of high stress
2. Determine wind load	2.1 Determine wind environment of tree 2.2 Determine surface area of structure exposed to wind 2.3 Determine crown surface area exposed to wind 2.4 Assess aerodynamic drag factor of tree crown in relation to trunk diameter and extent of hollowness 2.5 Estimate primary loads occurring in seasonal climatic events 2.6 Determine wind-load of prevailing storms 2.7 Determine load associated with saturated foliage 2.8 Consider additional drag associated with saturated foliage
3. Determine structural integrity by static load testing	3.1 Determine appropriate static load on trees for structural integrity testing as an estimate of a wind-equivalent load 3.2 Calibrate static load testing instruments so loads are accurately applied and maintained within limits of structural safety during a static test 3.3 Carry out a static test that loads the tree, measures the trunk strength and assesses root plate anchorage in the ground 3.4 Monitor loads and forces electronically 3.5 Monitor tree to ensure loads are kept within safe limits and damage is avoided to tree 3.6 Maintain accurate records of all data from static test. 3.7 Compare data with benchmarks obtained from stable tree populations 3.8 Document a report on structural integrity testing of tree from the static load test
4. Determine tree dynamic response	4.1 Research tree biomechanics studies using dynamic methods of analysis

Element	Performance criteria
	4.2 Understand simple models of tree dynamics 4.3 Review complex models and finite element analyses that provide multimodal approaches representing dynamics of branches on trees 4.4 Calculate existing mass of branches 4.5 Determine degree of open-grown form of tree by calculation of the of branch mass 4.6 Calculate vector of force on the tree 4.7 Determine the tree dynamic response in defined wind velocity and direction 4.8 Document a report on structural integrity testing of tree from the dynamic load analysis
5. Document a structural integrity report	5.1 Research level of contribution of material properties in tree dynamics 5.2 Research dynamic effect of branches on frequency and damping 5.3 Determine level of contribution of form and morphology in tree dynamics 5.4 Review suitability of invasive and non-invasive methods of testing 5.5 Evaluate and determine likelihood of structural failure 5.6 Confirm level of anchoring potential of root system and stability of tree 5.7 Document a structural integrity report and provide to client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

Not in unit mapping for CfE, but is used in AHC80115 - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB701 Analyse tree biomechanics

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- determining existing physical loads affecting trees
- identifying areas of high stress on trees and the factors that affect these areas of high stress
- assessing root plate environment including depth and consistency of soil, spatial limitations and history of site excavations
- assessing prior tree pruning operations to branches and roots
- determining extent of decay and damage of trunk and root system
- assessing strength and material properties of structural wood, particularly in areas of high stress
- determining wind environment of tree
- determining surface area of structure exposed to wind
- determining crown surface area exposed to wind
- assessing aerodynamic drag factor of tree crown in relation to trunk diameter and extent of hollowness
- estimating primary loads occurring in seasonal climatic events
- determining wind-load of prevailing storms
- determining load associated with saturated foliage
- considering additional drag associated with saturated foliage
- determining appropriate static load on trees for structural integrity testing as an estimate of a wind equivalent load
- calibrating static load testing instruments so loads are accurately applied and maintained within limits of structural safety during a static test
- carrying out a static test that loads the tree, measures the trunk strength and assesses root plate anchorage in the ground
- monitoring loads and forces electronically

- monitoring tree to ensure loads are kept within safe limits and damage is avoided to tree
- maintaining accurate records of all data from static test.
- comparing data with benchmarks obtained from stable tree populations
- documenting a report on structural integrity testing of tree from the static load test.
- researching tree biomechanics studies using dynamic methods of analysis
- understanding simple models of tree dynamics
- reviewing complex models and finite element analyses that provide multimodal approaches representing dynamics of branches on trees
- calculating the existing mass of branches
- determining degree of open-grown form of tree by calculation the of branch mass
- calculating the vector of force on the tree
- determining the tree dynamic response in defined wind velocity and direction
- researching the level of contribution of material properties in tree dynamics
- researching the dynamic effect of branches on frequency and damping
- determining the level of contribution of form and morphology in tree dynamics
- reviewing suitability of invasive and non-invasive methods of testing
- evaluating and determining likelihood of structural failure
- confirming level of anchoring potential of root system and stability of tree
- documenting a structural integrity report and provide to client.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- physical loads affecting trees
- areas of high stress on trees
- root plate environment including depth and consistency of soil, spatial limitations and history of site excavations
- prior tree pruning operations to branches and roots
- extent of decay and damage of trunk and root system
- assessment of strength and material properties of structural wood
- wind environment of tree
- surface area of structure exposed to wind
- crown surface area exposed to wind
- aerodynamic drag factor of tree crown in relation to trunk diameter and extent of hollowness
- estimation of primary loads occurring in seasonal climatic events
- wind-load of prevailing storms
- load associated with saturated foliage
- additional drag associated with saturated foliage
- static load
- static load test
- appropriateness of a static load on trees for structural integrity testing as an estimate of a wind equivalent load

- calibrating static load testing instruments
- limits of structural safety during a static test
- measurement of trunk strength
- assessment of root plate anchorage in the ground
- monitoring loads and forces electronically
- monitoring of tree to ensure loads are kept within safe limits
- avoidance of damage to tree
- maintenance of accurate records of all data from static test
- benchmarks obtained from stable tree populations
- reporting on structural integrity testing of tree
- researching tree biomechanics studies using dynamic methods of analysis
- simple models of tree dynamics
- complex models and finite element analyses
- multimodal approaches representing dynamics of branches on trees
- calculations of existing mass of branches
- open-grown form of tree
- vector of force on trees
- tree dynamic response
- wind velocity and direction
- material properties in tree dynamics
- dynamic effect of branches on frequency and damping
- form and morphology in tree dynamics
- of invasive and non-invasive methods of testing
- likelihood of structural failure
- level of anchoring potential of root system
- stability of tree
- structural integrity reporting.

Assessment Conditions

It is an industry requirement that competency in this unit requires the assessment of:

- five (5) static load tests, and
- five (5) dynamic load analyses.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
 - wind environment statistics
 - static load equipment
 - models of tree dynamics
- materials:
 - structural integrity report

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- tree biomechanics vocational competencies at least to the level being assessed
- current tree biomechanics skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB702 Analyse mycology cultures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to safely work within a laboratory environment, collect and identify wood decay fungi specimens, prepare in vitro cultures, and carry out primary experiments.

This unit applies to individuals with advanced theoretical and technical knowledge and skills for professional or highly skilled work and/or further learning in one or more disciplines or areas of practice. This unit applies to individuals with advanced cognitive, technical and communication skills to provide specialist advice, analyse, generate and transmit solutions to complex problems, and to demonstrate autonomy, well-developed judgement, adaptability and responsibility as a practitioner or learner.

The role involves the self-directed application of specialised knowledge in arboriculture with substantial depth in areas of tree pathology and mycology.

Work is performed under standard laboratory procedures of hygiene and safety for sampling, and use, sterilisation and cleaning of standard laboratory equipment and instruments.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research pathogenic and saprophytic wood decay fungi species	1.1 Research the role of fungi in biodiversity, tree nutrition, forest health, environmental biochemistry and pathology 1.2 Research the role and contribution of wood decay fungi to forest health, the influence of environmental stresses and physiological tree responses 1.3 Examine the taxonomy and evolutionary relationships of corticoid and polypore wood decay fungi 1.4 Investigate the role of fungal species on various hosts 1.5 Conduct analysis of lifecycle, biology, ecology and effects of pathogenic wood decay fungi species 1.6 Conduct analysis of lifecycle, biology, ecology and effects of saprophytic wood decay fungi species 1.7 Examine the relationships of fungal species with branch and tree failures 1.8 Analyse biosecurity implications of known and threat fungal species 1.9 Review PLANTPLAN biosecurity plans and procedures
2. Evaluate decay and identify fungi	2.1 Perform visual evaluation of the signs and symptoms of fungi and decay, including: visual symptoms such as dieback, reduced growth rate and chlorosis, presence of basidiocarps, decayed wounds, hollows and cavities 2.2 Perform field identification of wood decay species of fungi to generic level 2.3 Perform field identification of non-pathogenic fungi species to generic level 2.4 Document location, size, and condition of wood decay fungi, presence of mycoparasites, and size, condition and extent of hollows and cavities 2.5 Document details of environmental characteristics of fungal affected trees: site characteristics, site history, soil conditions, climate and microclimatic variables, proximity of adjacent trees and vegetation, movement of people and vehicles, and potential impacts to assets, property and landscape 2.6 Determine methods of introduction, establishment, spread, and susceptibility of adjacent trees and vegetation 2.7 Perform field sampling techniques of wood decay fungi and mycoparasites suitable for in-vitro culture and identification

Element	Performance criteria
3. Prepare in-vitro media, cultures	3.1 Decant and prepare standard laboratory chemicals and materials 3.2 Create selective culturing media to grow and isolate field samples 3.3 Prepare field samples for culturing on media 3.4 Take samples from field samples and apply to growth media 3.5 Isolate clean cultures from primary field cultures, and repeat until clean sample is obtained 3.6 Prepare cultured samples for further testing such as deoxyribonucleic (DNA) based assay techniques 3.7 Document records and store securely digital and physical evidence: field samples, slides, growth media, DNA and cultured samples, following chain of evidence protocols
4. Conduct laboratory identification and assays	4.1 Prepare microscope slides of isolated cultures 4.2 Examine and identify cultured fungal samples 4.3 Perform laboratory identification of wood decay fungi to generic level 4.4 Record digital images of identified fungi 4.5 Perform laboratory assay tests for growth rate, temperature range, pathogenicity, and mycoparasitism to evaluate fungal characteristics 4.6 Document experimental assay test results 4.7 Develop and maintain a culture collection for identification of fungi and submission to relevant government databases and culture collections 4.8 Document a diagnostic report on a suspected emergency plant pest (EPP) following PLANTPLAN guidelines

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

Not in unit mapping for CfE, but is used in AHC80115 - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB702 Analyse mycology cultures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- researching the role of fungi in biodiversity, tree nutrition, forest health, environmental biochemistry and pathology
- researching the role and contribution of wood decay fungi to forest health, the influence of environmental stresses and physiological tree responses
- examining the taxonomy and evolutionary relationships of corticoid and polypore wood decay fungi
- investigating the role of fungal species on various hosts
- conducting analysis of lifecycle, biology, ecology and effects of pathogenic wood decay fungi species
- conducting analysis of lifecycle, biology, ecology and effects of saprophytic wood decay fungi species
- examining the relationships of fungal species with branch and tree failures
- analysing biosecurity implications of known and threat fungal species
- reviewing PLANTPLAN biosecurity plans and procedures
- performing visual evaluation of the signs and symptoms of fungi and decay, including: visual symptoms such as dieback, reduced growth rate and chlorosis, presence of basidiocarps, decayed wounds, hollows and cavities
- performing field identification of wood decay species of fungi to generic level
- performing field identification of non-pathogenic fungi species to generic level
- documenting location, size, and condition of wood decay fungi, presence of mycoparasites, and size, condition and extent of hollows and cavities

- documenting details of environmental characteristics of fungal affected trees: site characteristics, site history, soil conditions, climate and microclimatic variables, proximity of adjacent trees and vegetation, movement of people and vehicles, and potential impacts to assets, property and landscape
- determining methods of introduction, establishment, spread, and susceptibility of adjacent trees and vegetation
- performing field sampling techniques of wood decay fungi and mycoparasites suitable for in-vitro culture and identification
- decanting and preparing standard laboratory chemicals and materials
- creating selective culturing media to grow and isolate field samples
- preparing field samples for culturing on media
- taking samples from field samples and apply to growth media
- isolating clean cultures from primary field cultures, and repeating until clean sample is obtained
- preparing cultured samples for further testing such as deoxyribonucleic (DNA) based assay techniques
- documenting records and storing securely digital and physical evidence: field samples, slides, growth media, DNA and cultured samples, following chain of evidence protocols
- preparing microscope slides of isolated cultures
- examining and identify cultured fungal samples
- performing laboratory identification of wood decay fungi to generic level
- recording digital images of identified fungi
- performing laboratory assay tests for growth rate, temperature range, pathogenicity, and mycoparasitism to evaluate fungal characteristics
- documenting experimental assay test results
- developing and maintaining a culture collection for identification of fungi and submission to relevant government databases and culture collections
- documenting a diagnostic report on a suspected emergency plant pest (EPP) following PLANTPLAN guidelines.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the role of fungi in biodiversity, tree nutrition, forest health, environmental biochemistry and pathology
- the role and contribution of wood decay fungi to forest health, the influence of environmental stresses and physiological tree responses
- taxonomy and evolutionary relationships of corticoid and polypore wood decay fungi
- the role of fungal species on various hosts
- lifecycles, biology, ecology and effects of pathogenic wood decay fungi species
- lifecycle, biology, ecology and effects of saprophytic wood decay fungi species
- relationships of fungal species with branch and tree failures
- biosecurity implications of known and threat fungal species
- PLANTPLAN biosecurity plans and procedures

- visual evaluation of the signs and symptoms of fungi and decay, including: visual symptoms such as dieback, reduced growth rate and chlorosis, presence of basidiocarps, decayed wounds, hollows and cavities
- field identification of wood decay species of fungi to generic level
- field identification of non-pathogenic fungi species to generic level
- location, size, and condition of wood decay fungi, presence of mycoparasites, and size, condition and extent of hollows and cavities
- environmental characteristics of fungal affected trees: site characteristics, site history, soil conditions, climate and microclimatic variables, proximity of adjacent trees and vegetation, movement of people and vehicles, and potential impacts to assets, property and landscape
- methods of introduction, establishment, spread, and susceptibility of adjacent trees and vegetation
- field sampling techniques of wood decay fungi and mycoparasites
- in-vitro culture of wood decay fungi and mycoparasites
- identification of wood decay fungi and mycoparasites
- methods of decanting and preparing standard laboratory chemicals and materials
- creation of selective culturing media to grow and isolate field samples
- preparation of field samples for culturing on media
- methods of sampling from field samples
- methods of application of samples to growth media
- isolation of clean cultures from primary field cultures
- methods of obtaining clean samples
- preparation of cultured samples
- deoxyribonucleic (DNA) based assay techniques
- documentation of records
- secure storage of digital and physical evidence: field samples, slides, growth media, DNA and cultured samples
- chain of evidence protocols
- preparation of microscope slides of isolated cultures
- identification of cultured fungal samples
- laboratory identification of wood decay fungi to generic level
- digital imaging of identified fungi
- laboratory assay tests for growth rate, temperature range, pathogenicity, and mycoparasitism to evaluate fungal characteristics
- documentation of experimental assay test results
- development and maintenance of culture collections
- methods of submission to relevant government databases and culture collections
- documentation of diagnostic reports
- emergency plant pest (EPP)
- PLANTPLAN guidelines.

Assessment Conditions

It is an industry requirement that competency in this unit requires the:

- field identification of a minimum of ten (10) wood decay fungi to generic level
- field identification of a minimum of ten (10) non-pathogenic fungi to generic level
- analysis of the lifecycle, biology, ecology and effects of a minimum of ten (10) saprophytic wood decay fungi species
- analysis of the lifecycle, biology, ecology and effects of a minimum of ten (10) pathogenic wood decay fungi species
- laboratory identification of a minimum of five (5) wood decay fungi to generic level.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - digital camera with macro
 - diagnostic tools including sounding hammer, trowel, probe, cordless drill
 - soil testing equipment
 - digital dissection microscope 10 -100x
 - compound microscope
 - microtome, staining and slide mounting equipment
 - slides and coverslips
 - temporary/permanent mountant
 - histochemical stains
 - laboratory equipment to perform aseptic techniques in a sterile environment
- materials:
 - emergency plant pest diagnostic report

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- mycology vocational competencies at least to the level being assessed
- current mycology skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB703 Research urban forest performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to research urban forest performance.

This unit applies to individuals with broad and coherent theoretical and technical knowledge with depth in one or more disciplines or areas of practice and cognitive, technical and communication skills to demonstrate autonomy, well developed judgement and responsibility in undertaking complex self-directed work and learning to provide specialist advice and functions.

The role involves the self-directed application of specialised knowledge in arboriculture with substantial depth in areas of urban forestry and climate change.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Research urban forest processes	1.1 Research and define elemental components of urban forests 1.2 Research role of urban forests as a primary component of urban ecosystems 1.3 Research threats to and resilience of urban forests in cities 1.4 Research regulation of hydrological processes, retention of precipitation, mitigation of salinity and effects of trees on water quality 1.5 Research relationship of soil biological network, soil chemistry, soil structure and trees to soil structure stabilisation and erosion potential 1.6 Determine contribution of trees towards rhizosphere biodiversity, bioremediation and soil health
2. Evaluate benefits of urban forests	2.1 Research energy conservation and micro-climate modification systems of trees and urban forests 2.2 Research heat island analyses of an urban area 2.3 Evaluate health, social and psychological benefits of urban forests 2.4 Document evidence-based research into a preliminary report on benefits of urban forests
3. Analyse methods and document report	3.1 Research current methods and technologies for spatial mapping of urban forests 3.2 Analyse process of carbon sequestration in urban forests 3.3 Analyse methods for sampling urban forests 3.4 Evaluate urban forest valuation methodologies 3.5 Document a preliminary report on methods of valuation of an urban forest
4. Examine climate change mitigation	4.1 Research contribution of urban forest to carbon cycles 4.2 Determine local climate, soil factors and management factors affecting forest growth and sequestration 4.3 Research contribution of forest carbon sequestration to mitigation of climate change 4.4 Document an evaluation of forest mitigation on climate change
5. Compile and document reports	5.1 Document a report on the social, environmental, economic and climatic values of urban forests 5.2 Determine challenges of increased urbanisation and urban densification on urban forests 5.3 Determine potential benefit of urban forest to mitigate climate change 5.4 Compile preliminary reports and document a report describing multi-disciplinary solutions to challenges of urbanisation on urban forests

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

Not in unit mapping for CfE, but is used in AHC80115 - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB703 Research urban forest performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- researching and define elemental components of urban forests
- researching role of urban forests as a primary component of urban ecosystems
- researching threats to and resilience of urban forests in cities
- researching regulation of hydrological processes, retention of precipitation, mitigation of salinity, and effects of trees on water quality
- researching relationship of soil biological network, soil chemistry, soil structure and trees to soil structure stabilisation and erosion potential
- determining contribution of trees towards rhizosphere biodiversity, bioremediation and soil health
- researching energy conservation and micro-climate modification systems of trees and urban forests
- researching heat island analyses of an urban area
- evaluating health, social and psychological benefits of urban forests
- documenting evidence-based research into a preliminary report on benefits of urban forests
- researching current methods and technologies for spatial mapping of urban forests
- analysing process of carbon sequestration in urban forests
- analysing methods for sampling urban forests
- evaluating urban forest valuation methodologies
- documenting a preliminary report on valuation of an urban forest
- researching contribution of urban forest to carbon cycles
- determining local climate, soil factors and management factors affecting forest growth and sequestration
- researching contribution of forest carbon sequestration to mitigation of climate change

- documenting an evaluation of forest mitigation on climate change
- documenting a report on the social, environmental, economic and climatic values of urban forests
- determining challenges of increased urbanisation and urban densification on urban forests
- determining potential benefit of urban forest to mitigate climate change
- compiling preliminary reports and documenting a report describing multi-disciplinary solutions to challenges of urbanisation on urban forests.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- elemental components of urban forests
- role of urban forests as a primary component of urban ecosystems
- threats to and resilience of urban forests in cities
- regulation of hydrological processes, retention of precipitation, mitigation of salinity, and effects of trees on water quality
- relationship of soil biological network, soil chemistry, soil structure and trees to soil structure stabilisation and erosion potential
- contribution of trees towards rhizosphere biodiversity, bioremediation and soil health
- energy conservation and micro-climate modification systems of trees and urban forests
- heat island analyses of an urban area
- health, social and psychological benefits of urban forests
- current methods and technologies for spatial mapping of urban forests
- process of carbon sequestration in urban forests
- methods for sampling urban forests
- urban forest valuation methodologies
- contribution of urban forest to carbon cycles
- local climate, soil factors and management factors affecting forest growth and sequestration
- contribution of forest carbon sequestration to mitigation of climate change
- evaluation of forest mitigation on climate change
- social, environmental, economic and climatic values of urban forests
- challenges of increased urbanisation and urban densification on urban forests
- potential benefit of urban forest to mitigate climate change
- multi-disciplinary solutions to challenges of urbanisation on urban forests.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - statistical software
 - internet connection
 - measurement and data collection tools
- materials:
 - urban forest report

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- urban forestry vocational competencies at least to the level being assessed
- current urban forestry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB704 Conduct an entomology research project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to conduct an entomology research project.

This unit applies to individuals with broad and coherent theoretical and technical knowledge with depth in one or more disciplines or areas of practice and cognitive, technical and communication skills to demonstrate autonomy, well developed judgement and responsibility in undertaking complex self-directed work and learning to provide specialist advice and functions.

The role involves the self-directed application of specialised knowledge in arboriculture with substantial depth in areas of tree pathology and entomology.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Research Insects	1.1 Describe and identify anatomical, morphological and taxonomical features of insect specimens 1.2 Examine and describe the behaviour, ecology and nutrition of insect interaction with trees 1.3 Research annualised population and generational behaviour of insects
2. Construct professional resource collections	2.1 Develop and document an insect collection 2.2 Construct database of tree pests and vectors 2.3 Compile host, climatic and geographic distribution data 2.4 Record and compile generational phenology
3. Research and assess tree-pest and vector interactions	3.1 Research and identify natural antagonists, predators and parasitoids of insects 3.2 Identify phytophagous and damaging insect-tree dynamics 3.3 Identify symbiotic/beneficial and insect-tree dynamics 3.4 Research physiology of tree resistance to insects 3.5 Research host-pathogen and pathogen-vector interactions 3.6 Evaluate conditions associated with the selection of host trees by subcortical feeding insects and the factors associated with successful attack 3.7 Research and assess insect transmission of disease 3.8 Evaluate multi-trophic interactions between host plant-pest-pathogen/parasitoids from a systems approach
4. Evaluate control systems	4.1 Determine economic costs of insects 4.2 Evaluate insects as environmental indicators 4.3 Determine insect biological hazards 4.4 Investigate direct and indirect impact and effects of chemical pesticides or biocontrol agents on target and non-target organisms 4.5 Research insect resistance to pesticides 4.6 Investigate fungi as biological control agents of tree pests 4.7 Evaluate biological control methods of Integrated Pest Management (IPM) 4.8 Research and evaluate plant health management options to offset the effects of insect damage
5. Present results	5.1 Collect, tabulate, and statistically analyse data for publications 5.2 Determine the relevance of the results to arboriculture 5.3 Compile and communicate research and test results in a research paper 5.4 Submit research paper to a professional technical peer-reviewed journal

Element	Performance criteria
	5.5 Review feedback and amend where appropriate 5.6 Communicate key facts and conclusions to industry in an article published in a non-technical industry publication or via presentation to an industry training event

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

Not in unit mapping for CfE, but is used in AHC80115 - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB704 Conduct an entomology research project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- describing and identifying anatomical, morphological and taxonomical features of insect specimens
- examining and describe the behaviour, ecology and nutrition of insect interaction with trees
- researching annualised population and generational behaviour of insects
- constructing a database of tree pests and vectors
- developing and documenting an insect collection
- compiling host climatic and geographic distribution data
- researching and identifying natural antagonists, predators and parasitoids of insects
- identifying phytophagous and damaging insect-tree dynamics
- identifying symbiotic/beneficial and insect-tree dynamics
- researching physiology of tree resistance to insects
- researching host-pathogen and pathogen-vector interactions
- evaluating conditions associated with the selection of host trees by subcortical feeding insects and the factors associated with successful attack
- researching and assess insect transmission of disease
- evaluating multi-trophic interactions between host plant-pest-pathogen/parasitoids from a systems approach
- determining economic costs of insects
- evaluating insects as environmental indicators
- determining insect biological hazards
- investigating direct and indirect impact and effects of chemical pesticides or biocontrol agents on target and non-target organisms
- researching insect resistance to pesticides

- investigating fungi as biological control agents of tree pests
- evaluating biological control methods of integrated pest management (IPM)
- researching and evaluating plant health management options to offset the effects of insect damage
- collecting, tabulating, and statistically analysing data for publications
- determining the relevance of the results to arboriculture
- compiling and communicate research and test results in a research paper
- submitting research paper to a professional technical peer-reviewed journal
- reviewing feedback and amend where appropriate
- communicating key facts and conclusions to industry in an article published in a non-technical industry publication or via presentation to an industry training event.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- anatomical, morphological and taxonomical features of insect specimens
- behaviour, ecology and nutrition of insect interaction with trees
- annualised population and generational behaviour of insects
- database construction of tree pests and vectors
- annualised population of insects
- generational behaviour of insects
- insect collections
- generational phenology
- host, climatic and geographic distribution data
- natural antagonists, predators and parasitoids of insects
- phytophagous and damaging insect-tree dynamics
- symbiotic/beneficial and insect-tree dynamics
- physiology of tree resistance to insects
- host-pathogen and pathogen-vector interactions
- conditions associated with the selection of host trees by subcortical feeding insects
- factors associated with successful attack
- insect transmission of disease
- multi-trophic interactions between host plant-pest-pathogen/parasitoids from a systems approach
- economic costs of insects
- insects as environmental indicators
- insect biological hazards
- direct and indirect impact and effects of chemical pesticides or biocontrol agents
- target and non-target organisms
- insect resistance to pesticides
- fungi as biological control agents of tree pests
- biological control methods of Integrated Pest Management (IPM)

- plant health management options to offset the effects of insect damage
- collection, tabulation, and statistical analysis of data for publications
- compilation and communication of research and test results in a research paper
- professional technical peer-reviewed journal
- methods of reviewing and amending feedback
- methods of communicating key facts and conclusions in articles and presentations
- publishing in non-technical industry publications.

Assessment Conditions

It is an industry requirement that competency in this unit requires the identification by anatomical, morphological and taxonomical features of insect specimens, compiled into a collection of a minimum of one hundred (100) specimens of arboricultural concern or benefit from at least four (4) orders of insects. The collection may be digital and/or physical, correctly labelled and containing information on:

- date of collection
- location of collection
- host where applicable
- insect genus, and
- species where possible.

It is an industry requirement that research projects and management strategies include two or more of the following inter-disciplinary programs, and must focus on a specified insect or closely related insect species:

- Conceive, design, and implement safe and efficacious control strategies
- Research and develop alternative management strategies
- Investigate the longevity, infectivity, and virulence
- Monitor and assess infestation levels of outbreaks
- Design and implement biocontrol strategies using predators, parasitoids, and entomopathogenic fungi
- Design and implement methods for monitoring and assessment of population dynamics and distribution of tree pest species
- Conduct and evaluate a comparative ecological field study investigating efficacy and compatibility
- Trial and research a management plan for a phytophagous insect
- Trial and research a breeding program for a beneficial insect
- Conduct research of three model systems to examine tritrophic effects of susceptibility
- Design, implement, investigate, evaluate and report on tritrophic interactions
- Investigate preference and survivability
- Design projects investigating the subsequent risk analysis and tests required
- Develop a tree pest survey strategy
- Research and report on geographical or climatic distribution
- Coordinate an international and domestic multidisciplinary collaborative research initiative

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
 - digital camera with macro
 - diagnostic tools including sounding hammer, trowel, probe, cordless drill
 - soil testing equipment
 - digital dissection microscope 10 -100x
 - compound microscope
 - microtome, staining and slide mounting equipment
 - slides and coverslips
 - temporary/permanent mountant
 - histochemical stains
- materials:
 - entomology research paper
 - insect collection/database of pests and vectors

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- entomology vocational competencies at least to the level being assessed
- current entomology skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB801 Contextualise diagnostic tests

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to contextualise diagnostic testing and execute a diagnostic test project.

This unit applies to individuals with advanced theoretical and technical knowledge and skills for professional or highly skilled work and/or further learning in one or more disciplines or areas of practice. This unit applies to individuals with advanced cognitive, technical and communication skills to provide specialist advice, analyse, generate and transmit solutions to complex problems, and to demonstrate autonomy, well-developed judgement, adaptability and responsibility as a practitioner or learner.

The role involves the self-directed application of knowledge in tree anatomy, physiology, pathology, tree dynamics and the edaphic environment with substantial depth in areas such as diagnostic tool application methods and analysis of diagnostic test results.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research diagnostic testing principles and processes	1.1 Research peer-reviewed documentation and relevant case studies 1.2 Develop competency in correct and functional operation of diagnostic testing equipment 1.3 Interpret underpinning scientific principles of test processes 1.4 Determine diagnostic assumptions and limitations of testing process for selected diagnostic tool
2. Analyse requirements and calibrate processes	2.1 Analyse quantification, variance and tolerance requirements for selected diagnostic tool 2.2 Research calibration baselines and seek verification where required 2.3 Verify appropriate calibration processes have been performed
3. Determine project parameters and execute a diagnostic test project	3.1 Select one or more appropriate testing processes for each of the primary domains: tree anatomy, physiology, pathology, tree dynamics and the edaphic environment 3.2 Contextualise testing for each domain with appropriate selection of diagnostic tools 3.3 Define scientific research method using a basis of hypothesis testing, measurement of functional relationships, and observational research as required 3.4 Investigate scientific literature resources referenced by current science of each primary domain 3.5 Describe efficacy of test in terms of primary domain 3.6 Conceive and execute a diagnostic test project
4. Interpret testing results	4.1 Express testing results in performance metrics for each of the selected diagnostic tools 4.2 Interpret results against normal and anticipated ranges 4.3 Confirm predictive responses in terms of pre treatment results to projected post treatment outcomes 4.4 Articulate meaning of results within context of primary domain
5. Provide prognosis and document management plans	5.1 Provide an informed prognosis 5.2 Research management options and lag time 5.3 Formulate a report that documents management plans

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB801 Contextualise diagnostic tests

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

It is an industry requirement that competency in this unit requires the analysis of five different diagnostic test results.

The candidate must provide evidence for and demonstrate:

- researching peer reviewed documentation and relevant case studies
- developing competency in correct, functional operation of diagnostic testing equipment
- interpreting the underpinning scientific principles of test processes
- describing the physical and other limits of the testing process
- determining the diagnostic assumptions and limitations of the testing process for the selected diagnostic tool
- analysing quantification, variance and tolerance requirements
- researching calibration baselines and seek verification where required
- verifying appropriate calibration processes have been performed
- selecting one or more appropriate testing processes for each of the primary domains of tree anatomy, physiology, pathology, tree dynamics and the edaphic environment
- contextualising testing for each domain with appropriate selection of diagnostic tools
- defining scientific research method using a basis of hypothesis testing, the measurement of functional relationships, and observational research.
- investigating and determine scientific literature resources referenced by the science of each primary domain
- describing the efficacy of the test in terms of the primary domain
- conceiving and executing a diagnostic test project
- expressing results in performance metrics of selected diagnostic tools
- interpreting results against normal and anticipated ranges

- confirming predictive responses in terms of post treatment to pre treatment results
- articulating meaning of results within context of primary domain
- providing an informed prognosis
- researching management options and lag time
- documenting management plans into report
- monitoring management plans and modify or refine as needed
- use of industry standard terminology to describe arboricultural diagnostic testing processes.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- peer reviewed documentation and case studies
- correct, functional operation of diagnostic testing equipment
- underpinning scientific principles behind the test processes
- physical and other limits of the testing process
- diagnostic assumptions and limitations of tools
- quantification
- baselines
- calibration processes
- tree anatomy
- tree physiology
- tree dynamics
- the edaphic environment of trees
- research methods
- hypothesis testing
- measurement of functional relationships
- verifying efficacy of a test
- performance metrics
- normal anticipated ranges of test result
- scientific research methods
- scientific literature
- diagnostic test projects and processes
- the contextual meaning of tests results
- prognostics
- management of diagnostic outcomes
- management plans
- monitoring management plans.

Assessment Conditions

It is an industry requirement that competency in this unit requires the analysis of a minimum of five different diagnostic test results, one in each of the primary domains of tree anatomy, physiology, pathology, tree dynamics and the edaphic environment.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - statistical software
 - internet connection
 - diagnostic tools selected for testing
- materials:
 - diagnostic test project
 - diagnostic test project management plan

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB802 Develop an urban forest management framework

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop an urban forest management framework incorporating the policy documentation and urban forest management planning.

This unit applies to individuals with advanced theoretical and technical knowledge and skills for professional or highly skilled work and/or further learning in one or more disciplines or areas of practice. This unit applies to individuals with advanced cognitive, technical and communication skills to provide specialist advice, analyse, generate and transmit solutions to complex problems, and to demonstrate autonomy, well-developed judgement, adaptability and responsibility as a practitioner or learner.

The role involves the self-directed application of knowledge in tree anatomy, physiology, pathology, tree dynamics and the edaphic environment with substantial depth in areas such as forest asset management, tree inventory and data analysis.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCARB703 Research urban forest performance

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish performance metrics and analyse resources	1.1 Research models of urban forest management 1.2 Establish the key performance metrics and outcomes to be assessed incorporating specific parameters from the client brief 1.3 Determine the data sets to be collected required for objectives of managing the resources and needs of stakeholders 1.4 Analyse urban forest resources 1.5 Determine agents and conditions affecting urban forest health 1.6 Analyse species spatially in target geographic areas using geographical information systems (GIS) as required 1.7 Determine canopy density targets
2. Determine urban forest asset value	2.1 Determine outcomes in social, environmental, public health, economic, and aesthetic terms 2.2 Determine asset value of single tree and forest based on value criteria of client and relevant benchmarks 2.3 Perform cost-benefit analysis of forest assets 2.4 Analyse variation in asset value within relevant variables
3. Review policy documentation	3.1 Analyse and review relevant policy documents for meeting performance metrics and desired outcomes 3.2 Determine statutory, liability and risk issues requiring consideration 3.3 Identify stakeholder requirements and perceptions 3.4 Evaluate the extent of impact and outcomes of proposed policy documents 3.5 Create policy determinations on tree assets and record as reports 3.6 Create and document urban forest management policy
4. Develop and document management plan	4.1 Develop appropriate conceptual framework for urban forest management 4.2 Develop street tree master plans as required 4.3 Set vision and objective statements 4.4 Determine quantifiable goals 4.5 Use tree inventory and mapping data management software as required 4.6 Establish and maintain inventories and databases 4.7 Develop implementation and operational plans 4.8 Develop and document an urban forest management plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit. No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB802 Develop an urban forest management framework

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- researching models of urban forest management
- establishing the key performance metrics and outcomes to be assessed incorporating specific parameters from the client brief
- determining the data sets to be collected required for objectives of managing the resources and needs of stakeholders
- analysing urban forest for resources
- determining agents and conditions affecting urban forest health
- analysing species spatially in target geographic areas using geographical information systems (GIS)
- determining canopy density targets
- determining outcomes in social, environmental, public health, economic, and aesthetic terms
- determining asset value of single tree and forest based on value criteria of client and relevant benchmarks
- performing cost-benefit analysis of forest assets
- analysing variation in asset value within relevant variables
- analysing and reviewing relevant policy documents for meeting performance metrics and desired outcomes
- determining statutory, liability and risk issues requiring consideration
- identifying stakeholder requirements and perceptions
- evaluating the extent of impact and outcomes of proposed policy documents
- creating policy determinations on tree assets and record as reports
- creating and document urban forest management policy
- developing appropriate conceptual framework for urban forest management

- determining the requirement for street tree master plans
- setting vision and objective statements
- determining quantifiable goals
- using tree inventory and mapping data management software as required
- establishing and maintain inventories and databases
- developing implementation and operational plans
- developing and document an urban forest management plan
- use of industry standard terminology to describe urban forest management.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- models of urban forest management
- key performance metrics
- data sets
- urban forest resources analysis
- tree assets
- urban forest health
- spatial analysis of trees
- geographical information systems (GIS)
- canopy density targets
- outcomes in social, environmental, public health, economic, and aesthetic terms
- asset value of single tree
- asset value of forest
- value criteria
- relevant benchmarks
- cost-benefit analysis
- forest assets
- variation in asset value
- variables
- performance metrics
- stakeholder requirements and perceptions
- policy determinations
- urban forest management policy
- conceptual framework
- urban forest management
- street tree master plans
- vision statements
- statement of objectives
- quantifiable goals
- tree inventory
- mapping data

- mapping data management
- mapping data management software
- inventories and databases
- implementation plans
- operational plans
- urban forest management plans.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - statistical software
 - internet connection
- materials:
 - urban forest management plan

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- urban forestry vocational competencies at least to the level being assessed
- current urban forestry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCARB803 Analyse edaphic interactions of trees and structures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to analyse the edaphic interactions of trees and structures.

This unit applies to individuals with advanced theoretical and technical knowledge and skills for professional or highly skilled work and/or further learning in one or more disciplines or areas of practice. This unit applies to individuals with advanced cognitive, technical and communication skills to provide specialist advice, analyse, generate and transmit solutions to complex problems, and to demonstrate autonomy, well-developed judgement, adaptability and responsibility as a practitioner or learner.

The role involves the self-directed application of knowledge in tree anatomy, physiology and the edaphic environment with substantial depth in areas such as tree failures and biomechanics in the built environment.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCARB701 Analyse tree biomechanics

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine soil attributes	1.1 Research repose angle of soil materials 1.2 Research soil plasticity 1.3 Measure soil moisture content and field capacity of soil 1.4 Research the effects of soil moisture on soil cohesion and plasticity 1.5 Research modes of soil liquefaction 1.6 Determine soil texture 1.7 Assess level of soil cohesion 1.8 Determine shear strength of the soil of concern 1.9 Research load bearing capacity of soil of concern 1.10 Determine mass of the soil plate
2. Determine root attributes	2.1 Determine root morphology, division and distribution 2.2 Determine amount of buttressing of tree 2.3 Determine species development of tap root system 2.4 Research identifying anatomical features of tree roots 2.5 Identify tree roots based on anatomical features
3. Calculate forces from roots	3.1 Research, experimentally model or demonstrate forces and pressures exerted into or through the soil, directly and indirectly by trees 3.2 Estimate and measure dimensions of roots exerting a force on a structure of concern 3.3 Calculate total surface area of the roots exerting a force on a structure of concern 3.4 Calculate force exerted by roots per unit of surface area of structure 3.5 Calculate total force exerted by roots of a given surface area
4. Determine structure attributes	4.1 Measure and determine volume of structure of concern 4.2 Research and calculate mass of the structure and adjacent structures 4.3 Consider the impact of gravity on mass 4.4 Determine affect of leverage on the forces exerted by tree roots onto structure of concern
5. Define the root-soil matrix factors for root/soil breakage	5.1 Determine factors of root-soil matrix interactions 5.2 Consider area of contact between root and soil

Element	Performance criteria
	5.3 Consider elasticity, tensile strength and breaking stress of roots 5.4 Investigate root cross-sectional morphology 5.5 Assess extent of root plate damage, deficiencies or defects 5.6 Estimate impact of static and dynamic testing for root plate stability 5.7 Evaluate the likelihood of root failure by root breakage 5.8 Evaluate the likelihood of anchorage failure by soil breakage or slippage
6. Research structural engineering solutions	6.1 Research and consider effects of increasing mass 6.2 Research and consider methods for, and effects of, increasing the modulus of rupture 6.3 Research and consider effects of use of curved structures 6.4 Research and consider effects of soil mass and friction 6.5 Research and consider effects of use of anchors, braces and props 6.6 Compile a portfolio of above research including personal annotations and calculations
7. Prepare stability and expert witness reports	7.1 Prepare report on likelihood of tree causing damage to structure of concern including all test results, assumptions and calculations 7.2 Provide design suggestions to mitigate likelihood of damage to a similar replacement structure 7.3 Prepare report on relative stability of tree as a result of a defective or damaged root plate 7.4 Provide design suggestions to mitigate likelihood of whole tree failure as a result of defective or damaged root plate 7.5 Prepare expert witness report on harm by roots on structures; or on stability of tree with a defective or damaged root plate, as required
8. Facilitate teamwork	8.1 Review construction and engineering language terminology 8.2 Discuss installation and protection measures to non-arboricultural project personnel 8.3 Resolve issues in construction and engineering terminology 8.4 Communicate in the language, concepts, basic science and technology of construction, architecture and engineering allied professions

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB803 Analyse edaphic interactions of trees and structures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- researching repose angle of soil materials
- researching soil plasticity
- measuring soil moisture content and field capacity of soil
- researching the effects of soil moisture on soil cohesion and plasticity
- researching modes of soil liquefaction
- determining soil texture
- assessing level of soil cohesion
- determining shear strength of the soil of concern
- researching load bearing capacity of soil of concern
- determining mass of the soil plate
- determining root morphology, division and distribution
- determining amount of buttressing of tree
- determining species development of tap root system
- researching identifying anatomical features of tree roots
- identifying tree roots based on anatomical features
- researching, experimentally modelling or demonstrating forces and pressures exerted into or through the soil, directly and indirectly by trees
- estimating and measuring dimensions of roots exerting a force on a structure of concern
- calculating total surface area of the roots exerting a force on a structure of concern
- calculating force exerted by roots per unit of surface area of structure
- calculating total force exerted by roots of a given surface area
- measuring and determine volume of structure of concern
- researching and calculate mass of the structure and adjacent structures

- considering the impact of gravity on mass
- determining affect of leverage on the forces exerted by tree roots onto structure of concern
- determining factors of root–soil matrix interactions
- considering area of contact between root and soil
- considering elasticity, tensile strength and breaking stress of roots
- investigating root cross-sectional morphology
- assessing extent of root plate damage, deficiencies or defects
- estimating impact of static and dynamic testing for root plate stability
- evaluating the likelihood of root failure by root breakage
- evaluating the likelihood of anchorage failure by soil breakage or slippage
- researching and considering effects of increasing mass
- researching and considering methods for, and effects of, increasing the modulus of rupture
- researching and considering effects of use of curved structures
- researching and considering effects of soil mass and friction
- researching and considering effects of use of anchors, braces and props
- compiling a portfolio of above research including personal annotations and calculations
- preparing report on likelihood of tree causing damage to structure of concern including all test results, assumptions and calculations
- providing design suggestions to mitigate likelihood of damage to a similar replacement structure
- preparing report on relative stability of tree as a result of a defective or damaged root plate
- providing design suggestions to mitigate likelihood of whole tree failure as a result of defective or damaged root plate
- preparing expert witness report on harm by roots on structures; or on stability of tree with a defective or damaged root plate, as required
- reviewing construction and engineering language terminology
- discussing installation and protection measures to non-arboricultural team members
- resolving issues in construction and engineering terminology
- communicating in the language, concepts, basic science and technology of construction, architecture and engineering allied professions.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- repose angle of soil materials
- soil plasticity
- soil moisture content
- field capacity of soil
- effects of soil moisture on soil cohesion and plasticity
- modes of soil liquefaction
- soil texture
- soil cohesion
- shear strength of the soil

- load bearing capacity
- mass of soil plate
- root morphology
- root division
- root distribution
- buttressing
- species development of tap root systems
- anatomical features of tree roots
- identification of tree roots based on anatomical features
- research, experimental modelling and demonstration methods
- forces and pressures exerted into or through the soil, directly and indirectly by trees
- estimation and measurement of dimensions of roots exerting a force on a structure
- calculation of the total surface area of the roots exerting a force on a structure
- calculation of the force exerted by roots per unit of surface area of structure
- calculation of the total force exerted by roots of a given surface area
- measurement of volume of structures
- calculation of the mass of structures
- impact of gravity on mass
- affect of leverage on the forces exerted by tree roots onto structure
- factors of root–soil matrix interactions
- area of contact between root and soil
- elasticity of roots
- tensile strength of roots
- breaking stress of roots
- root cross-sectional morphology
- extent of root plate damage
- extent of root plate deficiencies
- extent of root plate defects
- impact of static and dynamic testing for root plate stability
- likelihood of root failure by root breakage
- likelihood of anchorage failure by soil breakage or slippage
- effects of increasing mass
- effects of use of curved structures
- effects of soil mass and friction
- effects of, increasing the modulus of rupture
- effects of use of anchors, braces and props
- portfolio of research
- personal annotations and calculations
- report preparation
- test results and assumptions
- relative stability of tree
- whole tree failure

- design suggestions for mitigation of damage and whole tree failure
- harm by roots on structures
- expert witness reports
- expert witness report on harm by roots on structures
- construction language terminology
- engineering language terminology
- installation and protection measures
- concepts, basic science and technology of structural engineering
- concepts, basic science and technology of construction
- concepts, basic science and technology of architecture.

Assessment Conditions

It is an industry requirement that competency in this unit requires the preparation of a minimum of two (2) different reports:

- a report on harm by roots on structures
- a report on stability of tree with a defective or damaged root plate

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - internet connection
 - digital camera with macro
 - diagnostic tools including sounding hammer, trowel, probe, cordless drill
 - soil testing equipment
 - digital dissection microscope 10 -100x
 - compound microscope
 - microtome, staining and slide mounting equipment
 - slides and coverslips
 - temporary/permanent mountant
 - histochemical stains
- materials:

- structural damage and stability report
- glossary of construction, architecture and engineering terminology

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- tree biomechanics vocational competencies at least to the level being assessed
- current tree biomechanics skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW301 Protect places of Aboriginal cultural significance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to protect places of cultural significance to Aboriginal people. It requires following Aboriginal cultural protocols and details the specific cultural, gender and kinship sensitivities of working in Aboriginal communities and on Country with diverse cultural requirements.

This unit applies to those whose work on Country and in cultural keeping places and includes protecting cultural places, sites and objects often in co-operation with a range of stakeholders and with reference to Aboriginal communities and/or line management. The unit involves and requires a high level of awareness and experience with Aboriginal culture and communities and the need to observe Aboriginal cultural protocols. This unit is also applicable to the work of repatriation workers and anthropologists.

This unit applies to all Aboriginal sites workers. However, cultural beliefs and practices vary across locations and communities and in some situations non-Aboriginal learners may not be able to access the cultural knowledge or materials required to achieve competency in this unit, due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and communicate with key stakeholders	1.1 Identify appropriate persons within communities who hold cultural knowledge relevant to determining the cultural significance of Aboriginal places and heritage 1.2 Develop working relationships with key stakeholders that assist in the management of culturally significant places 1.3 Develop communication approaches that place Aboriginal cultural protocols and values at the forefront and accommodate stakeholder concerns and interests 1.4 Seek and obtain views on the way in which the cultural significance and resource can be conserved and used 1.5 Report feedback to management for operational planning processes
2. Define cultural significance	2.1 Ensure cultural knowledge holders inform the decision-making process to determine the cultural significance of places 2.2 Acknowledge and respect traditional Aboriginal knowledge, practices, rights and responsibilities in managing Country and environment 2.3 Determine the Aboriginal beliefs embedded in a place of cultural significance 2.4 Recognise the embodiment of cultural significance in the place itself, its fabric, natural resources, setting, use, associations, meanings, records, related places and related objects 2.5 Assess cultural significance 2.6 Document cultural significance in accordance with Community permissions
3. Identify threats to Aboriginal cultural places	3.1 Identify threats to culturally significant places, both external and internal to the area under consideration 3.2 Observe, describe and record details of evidence of land degradation using standard industry and Indigenous terminology and according to Community permissions 3.3 Participate in a risk assessment of all threats to determine potential impact on sites and associated cultural landscape 3.4 Identify appropriate protection or conservation measures to control potential and actual threats
4. Conserve significance	4.1 Use conservation policies and plans along with stakeholder views to participate in planning for ongoing conservation actions 4.2 Implement conservation activities in culturally sensitive ways,

Element	Performance criteria
	<p>and in accordance with Burra Charter guidelines and enterprise, Community and legislative requirements</p> <p>4.3 Apply safe and environmentally sustainable work practices</p> <p>4.4 Obtain resources for conservation and restoration activities, along with any associated ceremonial or cultural activity</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW301A Protect places of Aboriginal cultural significance.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW301 Protect places of Aboriginal cultural significance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify appropriate cultural authorities for a Community, place or for a site
- develop working relationships with Aboriginal and non-Aboriginal stakeholders in cultural sites
- canvass views in determining the cultural significance and heritage value and preservation issues of an Aboriginal cultural site
- contribute to planning for the protection of an Aboriginal cultural site including identifying resources required and submissions to be completed
- observe Aboriginal cultural protocols when working with stakeholders and land managers
- identify threats to Aboriginal site and measures to mitigate and manage the risk of damaging incidents or loss of cultural integrity
- identify natural resources and how they relate to cultural protocol, spirituality, art, environment, values, beliefs and lore/law
- identify cultural rights and responsibilities when using Community knowledge, information and material
- identify groups to be consulted in relation to owners or custodians of cultural and Community knowledge, information and material
- use Aboriginal names and standard industry terminology appropriate to the task
- apply work health and safety practices in the context of own work
- apply appropriate sustainability practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

-
- Community's history, cultural values and interpersonal and Community protocols related to the place
 - authentic and authoritative sources for Aboriginal cultural information, material and expression able to be accessed and shared
 - industry, organisational and enterprise policies and procedures for conservation of places of cultural significance
 - key concepts of Burra Charter and Guidelines
 - key concepts of Cultural and Heritage Legislation and National Parks and Wildlife Service (NPWS) legislation relevant to the protection of Aboriginal significant places.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW302 Relate Aboriginal culture to sites work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to understand cultural landscapes from Aboriginal perspectives. The unit introduces overarching belief systems that operate where Aboriginal sites work takes place. It provides a conceptual foundation for understanding Aboriginal cultural protocols, cultural customs and cultural practices that the Aboriginal sites worker is likely to encounter in daily work routines.

This unit applies to Aboriginal worldviews and beliefs as they impact and affect Aboriginal sites work on Country. The unit applies to working either as an autonomous sites worker or under the supervision and cultural authority of Traditional owners or Elders for specific Country and is also applicable to the work of repatriation workers and anthropologists.

This unit applies to all Aboriginal sites workers. However, cultural beliefs and practices vary across locations and communities and in some situations non-Aboriginal learners may not be able to access the cultural knowledge and materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Apply understanding of traditional cultural frameworks when working with Aboriginal people	1.1 Integrate the relationship to the land into daily work routines 1.2 Determine relationships of Aboriginal objects, features and cultural landscapes to Aboriginal beliefs 1.3 Determine the interrelationship of discrete Aboriginal sites to cultural frameworks 1.4 Acknowledge and respect traditional knowledge, belief systems, customs and cultural practices in managing Country
2. Recognise traditional Aboriginal social frameworks	2.1 Recognise different language groups and general lore/laws and customs 2.2 Identify extended family structures and clans in physical and geographical locations 2.3 Relate totemic structures and associated stories about ancestral beings from the Creation Period to landscape features and sites 2.4 Identify social structures that define the social positions, behaviours and obligations in kinship names, sections and networks 2.5 Identify the kinship system for determining roles and responsibilities, marriage unions, ceremonial relationships, funeral roles and behaviour patterns with other kin 2.6 Determine marriage relationships resulting from the union of two moieties or skin names 2.7 Recognise and respect gender roles
3. Relate Aboriginal spirituality to the landscape	3.1 Acknowledge and record Aboriginal beliefs that determine Aboriginal cultural protocols 3.2 Define the connection between spirituality and the land in local and trans-local terms of identity, culture and food 3.3 Relate the historical and present living environments to Dreaming stories and cultural knowledge 3.4 Recount cultural language and customs embedded in the relationship to the land and Aboriginal sites 3.5 Define the relationships of Creation stories, oral histories, kinship and totems to the cultural landscape 3.6 Recount the sense of belonging to the land and culture embedded in landscape in culturally appropriate ways 3.7 Express elements of spirituality in ceremony, rituals, stories, dance, song, art and language
4. Relate the interactions	4.1 Record the effects of cultural disconnection with the land,

Element	Performance criteria
between Dreaming, traditional beliefs and ceremonies to Aboriginal sites work	spirituality and ceremonial expressions of culture 4.2 Record impacts of disintegration and disconnection on Aboriginal sites 4.3 Acknowledge and respect the evolving nature of Dreaming 4.4 Identify and document current trends in mainstream culture and heritage and opportunities and threats to the Aboriginal sites work sector

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW302A Relate Aboriginal culture to sites work.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW302 Relate Aboriginal culture to sites work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- explain traditional Aboriginal belief systems of the Community
- identify examples and impacts of disintegration and disconnection with Aboriginal culture
- describe the relationship between the land and environment and Aboriginal peoples in culturally relevant ways
- explain the relationship between Dreaming, traditional beliefs, Ceremony and sites
- use Aboriginal names and standard industry terminology appropriate to the task.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- how to source appropriate cultural and lore/law authority for specific Country and/or sites
- protocols and customs relating to disclosure of knowledge about Country
- Aboriginal cultural and social frameworks
- Community's ancestral beliefs
- kinship names, sections and networks
- totems, moieties, skin names
- relationship of Community's Dreaming to the site and how it is evolving
- rules and limitations to access to cultural knowledge
- different social structures of various Indigenous Communities
- Indigenous cultural customs and heritage of the Community
- recording and documentation procedures used by organisation.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW303 Identify and record Aboriginal sites, objects and cultural landscapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to record information and knowledge on Country from both an Aboriginal and non-Aboriginal perspective.

This unit applies to the identification and recording of Aboriginal sites, objects and cultural landscapes on Country. The unit applies to working with lore/law men and women either as an autonomous sites worker or under the supervision and cultural authority of Traditional Owners or Elders for specific Country and is also applicable to the work of repatriation workers and anthropologists.

This unit applies to all Aboriginal sites workers. However, cultural beliefs and practices vary across locations and communities and in some situations non-Aboriginal learners may not be able to access the cultural knowledge and/or materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify Aboriginal sites, objects and materials and cultural landscapes on Country	1.1 Identify and consult appropriate cultural authorities 1.2 Obtain approval to be on Country and perform identification and recording work 1.3 Determine boundaries and extent of Country according to Community guidelines and Aboriginal cultural protocols 1.4 Determine details of land management and maintenance practices 1.5 Identify Aboriginal materials and objects accurately 1.6 Identify Aboriginal cultural landscapes and Aboriginal sites accurately 1.7 Determine the interrelationship of discrete Aboriginal sites to cultural landscapes and Indigenous land management 1.8 Carry out work on and off Country in accordance with work health and safety policies and procedures
2. Use the relevant Information Management System (IMS)	2.1 Determine the relevant government jurisdiction 2.2 Research and determine the relevant information management system (IMS) in operation and the organisation responsible for maintaining the system 2.3 Apply access restrictions to the IMS and confidentiality measures for recording secret, sacred materials 2.4 Access the IMS and select relevant options 2.5 Initiate and maintain, transfer of site, features and/or cultural landscape information
3. Record information on Aboriginal sites, objects and cultural landscapes	3.1 Use information and data collected about the Aboriginal site, objects, features or landscape according to Community guidelines and Aboriginal cultural protocols 3.2 Acknowledge and avoid practices which could damage the level of trust and respect between stakeholders, negotiating parties and the Community 3.3 Categorise and record site context, location and information data 3.4 Categorise and record feature data 3.5 Record Aboriginal Community interpretations, related history and culture and recommendations 3.6 Use standard industry terminology and Aboriginal names for recording and documenting information, where appropriate

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW303A Identify and record Aboriginal-sites, objects and cultural landscapes.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW303 Identify and record Aboriginal sites, objects and cultural landscapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can record information and knowledge on Country from both an Aboriginal and non-Aboriginal perspective.

The candidate must provide evidence that they can:

- record details of Aboriginal sites, objects and cultural landscapes consistent with the requirements of the relevant Information Management System
- record and collate information on Aboriginal culture and history for Country whilst following Aboriginal cultural protocols
- follow Community guidelines and Aboriginal cultural protocols regarding the use of information on sites, objects and cultural landscapes
- identify appropriate cultural authorities for a Community, site, story or Ceremony
- apply Community protocols and permissions to determine cultural information, material and cultural expression that is appropriate to be shared
- identify groups to be consulted in relation to owners and custodians of cultural and Community knowledge, information or material
- use Aboriginal names and standard industry terminology appropriate to the task
- apply work health and safety practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Community Aboriginal history, cultural values and interpersonal and Community protocols related to the site
- cultural rights and responsibilities when using Community knowledge, information and material

- authentic and authoritative sources for Aboriginal cultural information, material and expression able to be accessed and shared
- designated cultural areas and features, boundaries and extent of Country
- protocols and customs relating to disclosure of knowledge about Country.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW304 Identify Indigenous culturally significant plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to observe, record and report on the presence of plants of Indigenous cultural significance against criteria provided by a supervisor or as required under legislation, regulations, and or community protocols.

This unit involves the recognition of plants of Indigenous significance that are commonly encountered in land management situations and covers knowledge of Indigenous plant identification techniques, Indigenous plant names, community and organisational procedures for obtaining and supplying advice and information about Indigenous plants, and community or organisational expectations about the range and number of Indigenous plants to be recognised.

This unit has a particular focus on culturally significant Indigenous plants, management and conservation.

This unit applies to the identification and recording of Indigenous plants, local bushland and bush foods on Country. The unit applies to working with lore/law men and women either as an autonomous worker or under the supervision and cultural authority of Traditional Owners or Elders for specific Country.

This unit applies to all Aboriginal sites workers. However, cultural beliefs and practices vary across locations and communities and in some situations non-Aboriginal learners may not be able to access the cultural knowledge or materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for plant recognition	1.1 Identify range of Indigenous plants and plant species according to pre-determined criteria, and job or client needs 1.2 Identify and locate resources required for use in recognition activity 1.3 Identify, select and prepare processes for Indigenous plant recognition including consultation and seeking approval from relevant cultural authorities to be on specific Country 1.4 Identify safety hazards and apply work health and safety procedures
2. Identify specified Indigenous plants	2.1 Name specified Indigenous plants according to their identifiable characteristics and by their Indigenous name 2.2 Determine plant habits, characteristics and significant features according to enterprise requirements 2.3 Seek advice from cultural authorities or supervisors when necessary and where appropriate in the recognition activity
3. Survey and record identification of Indigenous plants in a specified area	3.1 Identify survey site and record location of plants using maps and grid references 3.2 Determine and record cultural uses and significance of specified Indigenous plants 3.3 Document information about Indigenous plants and add to reference collection according to organisational requirements 3.4 Update reference collection if new Indigenous plants are recognised 3.5 Identify rare or endangered plant species in location 3.6 Determine disposal techniques for plant debris if specimen collection is necessary 3.7 Apply environmentally sustainable practices for carrying out observation activities to minimise degradation and disturbance 3.8 Follow work health and safety policies and procedures for

Element	Performance criteria
	carrying out survey activities
4. Identify local bushland and/or bush foods and their uses	4.1 Determine the relationship between local foods, general health and the land in Aboriginal culture 4.2 Locate and gather information from a range of sources about access to bush foods 4.3 Identify local Indigenous plants using their common, scientific and cultural names 4.4 Identify Indigenous cultural uses of available bush resources for food and medicine 4.5 Identify land management practices and conservation of Indigenous species

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW304A Identify Indigenous culturally significant plants.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW304 Identify Indigenous culturally significant plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify Indigenous culturally significant plants
- observe and accurately identify species of Indigenous plants
- document observations in required format, according to Community and organisational needs
- apply environmentally sustainable practices to carry out survey activities in a natural area in order to minimise disruption to the environment
- explain and/or demonstrate uses of plants for food and medicine
- utilise available resources and equipment to identify Indigenous plants accurately
- read map and grid references to identify locations of plants
- use standard industry terminology and local Community names for Indigenous plants
- apply work health and safety practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- criteria used to categorise plant species
- common and scientific names of Indigenous plants
- biological species occurring in the study area
- the importance, value or potential impact of the species in a designated area
- rare and endangered species
- plant identification techniques and plant names used by enterprise
- organisational expectations relating to the range and number of Indigenous plants to be recognised in the survey

- cultural protocols for obtaining and utilising information about Indigenous plants
- nutritional and medicinal purposes of bushland and/or bush foods
- land management and conservation techniques applicable to Aboriginal sites work.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW305 Work with Aboriginal ceremonial secret sacred materials

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop an awareness of the protocols involved in Aboriginal culture as they relate to individuals and communities, specifically in relation to materials with restrictions on access for cultural reasons.

The unit covers Community cultural processes including the need to identify the appropriate persons when approaching a Community and the cultural and social rules associated with that task.

This unit applies to following Aboriginal cultural protocols when coming into contact and working with cultural materials defined as Aboriginal ceremonial secret sacred objects. The unit applies to working with this material on Country and off Country where rules apply to limited access to the material for cultural and ceremonial reasons. This unit is also applicable to the work of repatriation workers and anthropologists.

This unit applies to all Aboriginal sites workers. However, cultural beliefs and practices vary across locations and communities and in some situations non-Aboriginal learners may not be able to access the cultural knowledge or materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
<p>1. Conduct background research and consultation with Traditional Owners, Community, Cultural Managers/Knowledge holders</p>	<p>1.1 Confirm traditional ownership of cultural material and objects and consult appropriate Owners or Cultural Managers and Communities</p> <p>1.2 Identify gender requirements for consultations, handling of and access to materials according to Aboriginal cultural protocols</p> <p>1.3 Consult with Traditional Owner/s, Community groups and experts to determine suitable holding for materials not authorised for general exhibition</p> <p>1.4 Obtain permissions from cultural authorities for access and use of Aboriginal secret, sacred and ceremonial materials</p> <p>1.5 Consult with Community to determine culturally appropriate handling of material and any limitations on access to materials</p> <p>1.6 Demonstrate confidentiality and neutrality in consultations and dealings with Traditional Owners and Cultural Managers</p>
<p>2. Handle Aboriginal secret sacred cultural material</p>	<p>2.1 Allow for and carry out any required Ceremony and procedure associated with seeing, handling or moving the material</p> <p>2.2 Identify, move, store, maintain and return cultural material according to Aboriginal cultural requirements and enter into agreements</p> <p>2.3 Note aspects of cultural material requiring repair or attention and pass onto supervisor or person with relevant expertise</p> <p>2.4 Communicate specific Aboriginal cultural requirements to colleagues</p> <p>2.5 Select and use appropriate handling and moving equipment according to safe work practices and to protect sacred and ceremonial material</p> <p>2.6 Adhere to cultural restrictions and limitations on secret, sacred and ceremonial material</p> <p>2.7 Demonstrate handling cultural material in a manner that protects individual items, assists efficient loading and unloading processes if moving, and in accordance with safe work practices</p> <p>2.8 Handle, move, store and manage secret sacred cultural material in accordance with Burra Charter guidelines and legislative</p>

Element	Performance criteria
	requirements
3. Contribute to documenting a generational succession plan for passing on ownership of secret sacred material	3.1 Discuss options for inheritance of ownership with Traditional Owners and/or Elders 3.2 Participate in documenting the process, guidelines and timeframes agreeable to Traditional Owners and Cultural Managers for handover of ownership, control and access to secret sacred materials

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW305A Work with Aboriginal ceremonial secret sacred materials.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW305 Work with Aboriginal ceremonial secret sacred materials

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify cultural authority for ceremony in a particular area or site
- consult effectively with Traditional Owners and relevant Community representatives about the handling, access to and display of cultural material
- observe Aboriginal cultural protocols and follow collection management practices and industry cultural requirements when moving, storing, displaying and maintaining cultural material
- select and use handling, storage and transport systems in accordance with Aboriginal cultural protocols
- create, maintain and store records of the process, guidelines and timeframes for handover of ownership, control and access to secret sacred materials
- use standard industry terminology and Aboriginal names for sites and materials, as appropriate
- apply work health and safety practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- issues that frame the development of cultural protocols
- Community Aboriginal history, cultural values and interpersonal and Community protocols
- authentic and authoritative sources for Aboriginal cultural information, material and expression able to be accessed and shared
- ownership relationships for secret, sacred material

- content of contracts and confidentiality agreements applicable to working with ceremonial secret sacred materials
- organisational procedures and guidelines for working with ceremonial secret sacred materials
- Burra Charter guidelines appropriate to working with Aboriginal secret sacred materials
- key concepts of Cultural and Heritage Legislation or National Parks and Wildlife Service (NPWS) legislation relevant to working with ceremonial secret sacred materials.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW306 Use technology in Aboriginal sites work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to use technology and tools necessary to conduct Aboriginal sites work.

This unit applies to Aboriginal sites workers utilising technology on Country and in an office environment to assist them in their work. The unit applies to working either as an autonomous sites worker or under the supervision and cultural authority of Traditional owners or Elders for specific Country and is also applicable to the work of repatriation workers and anthropologists.

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country to identify and record site locations, read maps, and photograph and record sites, landscapes and objects.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Apply information literacy skills to meet job needs	1.1 Determine exact nature and extent of information technology needs for Aboriginal sites work undertaken in accordance with Aboriginal cultural protocols 1.2 Identify the relevant information management systems (IMS) and their applications for Aboriginal sites 1.3 Develop effective search strategies and use appropriate search tools to locate and record information in applications or programs used by enterprise 1.4 Follow Aboriginal cultural requirements for accessing and handling Aboriginal cultural material and cultural information 1.5 Recognise and apply copyright and licensing requirements related to access and use Aboriginal cultural material and cultural information
2. Set up and use handheld technology	2.1 Identify and set up the basic operating and menu settings 2.2 Navigate and manipulate the screen environment according to needs 2.3 Customise screen icons and access to applications where applicable 2.4 Use technology to locate and record location and details of the site or cultural landscape and save and edit the output, where applicable 2.5 Assess the usefulness and relevance of information resources to the site's work context and client needs 2.6 Evaluate search results and adjust search strategies to meet information needs 2.7 Use more advanced features as required
3. Access and use basic connectivity devices	3.1 Set the basic operating and menu settings 3.2 Connect external digital devices, such as computer devices or storage devices to retrieve, copy, move and save information 3.3 Check physical connectivity of computer devices or storage devices to ensure operation and performance 3.4 Connect printer either through a computer device or directly, set printer settings and print data 3.5 Access audio-visual devices to view and play a multimedia file 3.6 Use manuals, training booklets and/or online help or help-desks to overcome basic difficulties with applications
4. Maintain and operate UHF/VHF radio and compass onsite in the	4.1 Make sure suitable radio equipment for communication needs is available on site 4.2 Use radio devices and terminology effectively and correctly to

Element	Performance criteria
context of site work	meet communication needs of self and team on site 4.3 Apply storage and transport requirements for compass equipment 4.4 Identify a suitable directional compass for orientation needs on-site 4.5 Use directional compass in conjunction with a geographical and topographical map to accurately move around onsite and map coordinates
5. Maintain knowledge of IMS trends and emerging technologies	5.1 Source information about current industry trends and emerging technologies in relation to IMS and data collection methods 5.2 Replace used technology consumables in accordance with manufacturer's instructions and organisational requirements 5.3 Carry out, or arrange for routine maintenance to ensure equipment is maintained in accordance with manufacturer's instructions and organisational requirements 5.4 Accurately identify equipment faults, perform maintenance in accordance with manufacturer's instructions or report fault to designated person

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW306A Use technology in Aboriginal-sites work.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW306 Use technology in Aboriginal sites work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- use digital devices, including computers, smart phones, tablets, radios, GPS (Global Positioning System) or PDAs (Personal Data Assistants)
- use menu features and navigate around the device and IMS functions
- use device features, software and applications to perform tasks to enterprise requirements
- save work in a format and location according to enterprise requirements
- transfer saved files to a computer for long term storage and printing
- use compass and maps to move around site and map site coordinates
- use audio visual devices to enterprise requirements.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- basic security functions
- basic software operation and associated applications
- map reading (including topographical maps) and longitudinal and latitudinal coordinates
- digital device functions used in own role
- how to use internal and external computer storage devices.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy the current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW307 Support the documentation of Aboriginal cultural landscapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify and assist with the documentation of an Aboriginal cultural landscape on Country from an Aboriginal perspective.

This unit applies to Aboriginal sites workers who are working with experts to identify and record Aboriginal cultural landscapes on and off Country.

The unit applies to working with lore/law men and women either as an autonomous Sites worker or under the supervision and cultural authority of Traditional Owners and Elders for specific Country and is also applicable to the work of repatriation workers and anthropologists.

This unit applies to all Aboriginal sites workers. However, cultural beliefs and practices vary across locations and communities and in some situations non-Aboriginal learners may not be able to access the cultural knowledge or materials required to achieve competency in this unit due to restrictions applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify the characteristics of Aboriginal cultural landscapes on Country	1.1 Identify Aboriginal cultural landscapes and associated sites and features of cultural significance 1.2 Determine boundaries and extent of Country 1.3 Apply the concept of lore/law in the land 1.4 Describe Aboriginal cultural landscapes in ecological and archaeological terms, Aboriginal cultural language and spiritual terms, and traditional Aboriginal economic terms 1.5 Identify archaeological evidence of landforms
2. Participate in investigations of cultural and historical records of an Aboriginal cultural landscape	2.1 Identify from relevant databases or websites whether any historical records or previous research is available for the site 2.2 Participate in research activities to determine traditional understanding of the cycle of the seasons and meteorological phenomena, and of landform and vegetation community types in a cultural landscape 2.3 Determine environmental cultural knowledge, cultural connections and relationships with the landscape that are passed down generationally 2.4 Carry out investigations on Country in accordance with safe work policies and procedures, enterprise requirements and Burra Charter guidelines
3. Identify Aboriginal cultural value links to cultural landscapes	3.1 Identify cultural landscapes and determine links with Aboriginal cultural and Community knowledge 3.2 Describe relationships between Creation stories, oral histories, kinship and totemic to the cultural landscape 3.3 Identify gender access, roles and usage as this relates to the cultural landscape 3.4 Identify Aboriginal cultural values in cultural landscapes 3.5 Identify links between archaeological evidence and cultural landscapes 3.6 Identify indicators in the landscape that reveal traditional Aboriginal land management practices

Element	Performance criteria
4. Describe Aboriginal cultural practices and beliefs which maintain cultural connections to cultural landscapes	4.1 Identify appropriate persons within Communities who hold cultural knowledge 4.2 Identify appropriate Cultural Knowledge holders and/or Cultural Manager for an Aboriginal cultural landscape 4.3 Recount the range and interrelationship of Aboriginal beliefs and Aboriginal cultural and ceremonial practices that maintain connection with the cultural landscape 4.4 Document the associations of connection to Country through language, stories, song, dance and art if appropriate according to Community protocols and customs relating to disclosure of knowledge, using archaeological and Aboriginal terminology

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW307A Map Aboriginal cultural landscapes.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW307 Support the documentation of Aboriginal cultural landscapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- discuss Aboriginal cultural landscapes in ecological and archaeological terms, Aboriginal cultural, language and spiritual terms and traditional Aboriginal economic terms
- relate Creation stories, oral histories, kinship and totemic relationships to the cultural landscape
- follow Community guidelines and Aboriginal cultural protocols when using information on sites, objects and cultural landscapes
- identify appropriate cultural authorities for a Community, site, story or Ceremony
- describe the range and interrelationship of Aboriginal cultural and ceremonial practices undertaken to maintain connection with the culture
- use Aboriginal names and archaeological terminology to describe landscapes and cultural connections.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the Community's Aboriginal history and cultural values
- Community protocols
- authentic and authoritative sources for Aboriginal cultural information, material and expression able to be accessed and shared
- designated cultural areas and features of Country, boundaries and extent of Country
- Aboriginal cultural values of landform types
- archaeological evidence of landform types
- types of land features that have high possibility of cultural heritage being present
- creation stories, oral histories, kinship and totemic relationships to the cultural landscape

- key principles, values and practices of Aboriginal cultural knowledge
- lore/laws, customs and speaking rights
- connection to Country through stories, song, dance and art
- protocols and customs relating to disclosure of knowledge about Country
- key concepts of Cultural and Heritage Legislation or National Parks and Wildlife Service (NPWS) legislation relevant to own role
- key concepts of the Burra Charter.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy the current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW308 Apply cultural significance to Aboriginal sites and landscapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to determine theoretical and practical concepts of cultural significance in relation to Aboriginal cultural sites and landscapes. It uses the Burra Charter as the industry benchmark in assessing significance for culture and heritage work.

This unit applies to those who are working on Country finding Aboriginal sites and working to assess significance in landscapes on Country. The unit applies to working with lore/law men and women either as an autonomous Sites worker or under the supervision and cultural authority of Traditional Owners and Elders for specific Country. This unit is also applicable to the work of repatriation workers and anthropologists.

This unit applies to all Aboriginal-sites workers. However, cultural beliefs and practices vary across locations and communities and in some situations non-Aboriginal learners may not be able to access the cultural knowledge or materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCASW302 Relate Aboriginal culture to sites work*

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine cultural significance	1.1 Ensure cultural knowledge holders inform the decision-making process to determine the cultural significance of Aboriginal sites and places 1.2 Acknowledge the determination of Aboriginal people as the primary source, and owners of information about the cultural significance of an Aboriginal site and landscape 1.3 Seek permission from cultural Authority to collect and share cultural knowledge 1.4 Acknowledge and respect traditional knowledge and practices in managing Country and environment 1.5 Determine Aboriginal history and beliefs embedded in a place of cultural significance 1.6 Recognise the embodiment of cultural significance in the place itself, the geographical and geological features, its fabric, artefacts and stone objects, setting, use, associations, meanings, records, related places and related objects
2. Conduct a significance assessment on an Aboriginal site	2.1 Determine the difference between an assessment of cultural significance and a statement of cultural significance 2.2 Consult with colleagues and experts to identify factors that may impact on the assessment and incorporate them into planning work 2.3 Collect information relevant to the assessment of cultural significance in collaboration with relevant experts 2.4 Assess the cultural significance of the site in accordance with the Burra Charter guidelines and legislative requirements 2.5 Prepare a statement of cultural significance consistent with the assessment of cultural significance findings, in collaboration with relevant experts to Community and legislative requirements 2.6 Seek feedback from colleagues on statement of significance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW308A Apply cultural significance to Aboriginal-sites and landscapes.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW308 Apply cultural significance to Aboriginal sites and landscapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must demonstrate that they can:

- determine theoretical and practical concepts of cultural significance in relation to Aboriginal cultural sites and landscapes
- identify appropriate cultural authorities for a Community, place or for a site
- collaborate with relevant experts to complete an assessment of cultural significance
- adhere to Burra Charter process and guidelines
- identify cultural information, material and expression appropriate to be shared
- identify groups and individuals to be consulted in relation to owners or custodians of cultural and Community knowledge, information and material
- recognise factors that may impact on the assessment, including artefacts and stone objects on site and geological and geographical features of the landscape.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Aboriginal history, cultural values and interpersonal and Community protocols
- authentic and authoritative sources for Aboriginal cultural information, material and expression able to be accessed and shared
- the role and prominence of the Burra Charter in the culture and heritage sector in Australia
- the Burra Charter definition of significance
- geographic and geological identification features of the cultural landscape
- artefacts and stone objects identification
- key concepts of Cultural and Heritage Legislation or National Parks and Wildlife Service (NPWS) legislation relevant to own role.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy the current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW309 Interpret Aboriginal cultural landscape

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to interpret cultural landscapes from an Aboriginal cultural and spiritual perspective. The unit also covers if and how this knowledge may be collected and provided to others.

This unit applies to individuals who are required to interpret cultural landscapes on Country. The unit applies to working with lore/law men and women either as an autonomous sites worker or under the supervision and cultural authority of Traditional Owners and Elders for specific Country. This unit is also applicable to the work of repatriation workers and anthropologists.

This unit applies to all Aboriginal sites workers. However, cultural beliefs and practices vary across locations and communities however and in some situations non-Aboriginal learners may not be able to access the cultural knowledge and materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCASW302 Relate Aboriginal culture to sites work

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Investigate cultural knowledge	1.1 Acknowledge the determination of Aboriginal people as the primary source of information about cultural knowledge 1.2 Work with cultural authorities to identify appropriate persons within communities who hold cultural knowledge 1.3 Access cultural knowledge through reference to the appropriate Knowledge Holders or Cultural Manager 1.4 Consult appropriate cultural authorities to obtain approval to be on Country 1.5 Determine boundaries and extent of Country 1.6 Establish ownership rights and intellectual property rights to Aboriginal cultural knowledge 1.7 Establish parameters for access and access restrictions in transferring cultural knowledge and information 1.8 Determine and record key principles, values and practices of Aboriginal cultural knowledge 1.9 Define relationships between cultural knowledge and Country according to Aboriginal cultural protocols 1.10 Determine and record the history of dispossession from Community sources and available resources 1.11 Recount lost connections to Country due to colonisation
2. Acquire information	2.1 Manage movement through Country/park/reserve to minimise disturbance and degradation to the park/reserve and surrounding environments 2.2 Determine the relationships between Aboriginal beliefs, Aboriginal sites, land features, seasons, artefacts, objects and spirituality 2.3 Identify landscape features and sites on Country in accordance with their place and role in Dreaming, Aboriginal spirituality and local cultural practices and ceremony 2.4 Make the association of connection to Country through language, stories, song, dance and art 2.5 Determine the role of lore and customs in matters of land, family, marriage, kinship, totem, clan and obligation 2.6 Use Aboriginal and common names to identify fauna and flora used for food and medicine 2.7 Investigate knowledge of relationships between plants and animals from Aboriginal beliefs, land management and cultural

Element	Performance criteria
	<p>perspectives</p> <p>2.8 Define simple bush tucker food chains relevant to Country and determine relationships to the cultural landscape</p> <p>2.9 Carry out investigations in accordance with work health and safety and environmental sustainability policies and procedures</p> <p>2.10 Document investigation in accordance with Community protocols and permissions, to enterprise standards</p>
3. Relate information on cultural knowledge to others	<p>3.1 Seek permissions from cultural authorities, relevant individuals and organisations for access, use and documentation of Aboriginal cultural information and material</p> <p>3.2 Provide information on Aboriginal cultural knowledge to those who are authorised to possess that knowledge according to Community guidelines and Aboriginal cultural protocols</p> <p>3.3 Relate information on cultural knowledge in an appropriate format and medium according to Community guidelines and cultural protocols</p> <p>3.4 Refer requests for disclosure of information on Aboriginal cultural sites, landscapes and cultural material that infringes intellectual property rights of a group or Community to appropriate persons</p> <p>3.5 Decline requests for disclosure of information on aspects of cultural knowledge by unauthorised individuals</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW309A Interpret Aboriginal cultural landscape.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW309 Interpret Aboriginal cultural landscape

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret cultural landscapes from an Aboriginal cultural and spiritual perspective
- identify details of plant and animal species on Country, their Aboriginal names and their roles and place in the cultural landscape
- collate information on Aboriginal culture and history for Country in culturally appropriate ways
- collect and use information according to Community guidelines and cultural protocols
- follow community lore/laws, customs on accessing and sharing cultural knowledge
- identify landscape features and sites on Country in accordance with their place and role in Dreaming, Aboriginal spirituality and local cultural practices and ceremony
- use Aboriginal names and standard industry terminology appropriate to the task
- apply work health and safety practices in the context of own work
- apply appropriate sustainability practices to minimise disturbance and degradation to park or reserve and surrounding environments.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Aboriginal history, cultural values and interpersonal and Community protocols associated with area
- Aboriginal cultural customs and heritage related to area
- authentic and authoritative sources for Aboriginal cultural information, material and expression able to be accessed and shared
- designated cultural areas and features of Country, boundaries and extent of Country
- key principles, values and practices of Aboriginal cultural knowledge

- connection to Country through stories, song, dance and art
- role of Community lore and customs in matters of land, family, marriage, kinship, totem, clan and obligation
- protocols and customs relating to disclosure of knowledge about Country
- when and how to relate and document information and when it is not appropriate according to cultural protocols
- Aboriginal names for plants, animals and landscape features
- cultural knowledge about plant and animals relating to a particular Community, group or region
- role and rights of Indigenous people in maintaining and controlling cultural knowledge
- individuals who are authorised to possess cultural knowledge.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW310 Move and store Aboriginal cultural material

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to handle, pack and unpack Aboriginal cultural material for movement and storage.

This unit applies particularly to working around and with Aboriginal cultural materials and objects and focuses on the specific cultural and consultative requirements for sourcing, handling, and possibly interpreting Aboriginal cultural material. This unit is also applicable to the work of repatriation workers and anthropologists.

This unit applies to all Aboriginal sites workers. However, cultural beliefs and practices vary across locations and communities and in some situations non-Aboriginal learners may not be able to access the cultural knowledge or materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Source Aboriginal cultural material	1.1 Confirm traditional ownership of cultural material 1.2 Consult with the appropriate traditional custodians and Community to determine suitable keeping places for cultural materials 1.3 Work with cultural authorities to identify appropriate persons within Community who hold cultural knowledge relevant to establishing any restrictions on access to materials 1.4 Seek permission and advice for being on site and using cultural material according to Aboriginal cultural protocols 1.5 Locate and identify cultural material and objects and assess material's suitability for moving 1.6 Complete records according to cultural protocols 1.7 Identify issues and follow protocols in relation to the return of cultural material to local Aboriginal Community
2. Determine movement and storage requirements	2.1 Implement legislative and work health and safety requirements 2.2 Assess and document the scope of work required for movement and storage of cultural material 2.3 Identify and confirm organisational procedures and guidelines and specific requirements for moving and storing cultural material with relevant personnel 2.4 Determine future storage requirements with relevant personnel 2.5 Assess and arrange the need for specialist expertise
3. Handle and transfer Aboriginal cultural material	3.1 Identify, move, store, maintain and return cultural material according to Aboriginal cultural requirements 3.2 Record details of material requiring repair or attention and take action within scope of own job role or refer to relevant personnel as required 3.3 Communicate specific Aboriginal cultural requirements to colleagues 3.4 Select and use appropriate handling and moving equipment 3.5 Handle cultural material in a manner that protects individual items and assists efficient loading and unloading processes 3.6 Prepare transportation documentation 3.7 Transfer Aboriginal cultural material to approved location 3.8 Use techniques for moving material that minimise environmental disturbance and degradation, where appropriate

Element	Performance criteria
4. Store cultural material according to Aboriginal cultural requirements	4.1 Install, position or store cultural material as required 4.2 Ensure specific storage needs of cultural material are based on knowledge of requirements for different types of materials 4.3 Clear and clean work areas according to organisational procedures 4.4 Maintain storage records according to organisational policies and procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW310A Move and store Aboriginal cultural material.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW310 Move and store Aboriginal cultural material

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify appropriate cultural authorities for a Community, place or site
- consult effectively with Traditional Owners, Cultural Managers and relevant Community representatives about the handling, access to and display of cultural material
- handle, move and store cultural materials according to cultural protocols
- seek permissions from cultural authorities for being on site and handling, moving, storing and recording cultural material, according to Community protocols
- observe Aboriginal cultural protocols, follow collection management practices and industry requirements when moving, storing, displaying and maintaining cultural material
- record details of transporting and storing of cultural material
- report damage or faults with cultural material to appropriate persons
- select and use handling, storage and transport equipment
- apply work health and safety practices in the context of own work
- apply appropriate sustainability practices to minimise environmental disturbance and degradation when moving cultural objects from Aboriginal sites.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- authentic and authoritative sources for Aboriginal cultural information, material and expression able to be accessed and shared
- cultural authority for ceremony on the site
- ownership relationships for secret, sacred material
- record-keeping techniques
- organisational procedures and guidelines.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy the current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW312 Maintain an Aboriginal cultural site

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain Aboriginal cultural sites.

This unit applies to those working in Aboriginal communities and on Country in cultural landscapes and with cultural sites and objects. The unit applies to working with lore/law men and women, either as an autonomous Sites worker or under the supervision and cultural authority of Traditional Owners or Elders for specific Country. This unit is also applicable to the work of repatriation workers and anthropologists.

This unit applies to all Aboriginal sites workers. However, cultural beliefs and practices vary across locations and communities however and in some situations non-Aboriginal learners may not be able to access the cultural knowledge or materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess maintenance work requirements and relevant cultural protocols	1.1 Identify and consult appropriate cultural authorities according to Aboriginal cultural protocols 1.2 Obtain approval and permits from relevant Traditional Owners and Cultural Managers for work to be carried out and for access to cultural site and materials for the specific persons who will conduct work 1.3 Access records of assessment of significance incorporated into strategies and plans for area and site, to determine required and appropriate actions 1.4 Identify any prior works that are not in keeping with cultural practices or causing damage to culturally significant sites or assets and determine appropriate maintenance actions 1.5 Collect information on environmental systems and procedures and provide to the work group where appropriate 1.6 Identify machinery, tools, equipment and materials to carry out maintenance works with appropriate techniques 1.7 Estimate level of work and document materials required for maintenance work 1.8 Identify where traditional Aboriginal repair or maintenance techniques and relevant archaeological practices and procedures are to be used and where modern techniques should be applied
2. Prepare for maintenance	2.1 Organise machinery, equipment and materials to carry out maintenance works and undertake pre-maintenance checks 2.2 Prepare and assemble safety equipment and materials 2.3 Identify safety hazards and apply safe work policies and procedures for all maintenance work
3. Maintain condition of place	3.1 Undertake maintenance work according to archaeological practices and Aboriginal cultural protocols and approvals and requirements of work programs and in a manner that ensures significance of place is maintained, and that work meets environmental sustainability requirements and does not cause damage to surrounds, fabric or building, or materials 3.2 Apply continuous improvement strategies to own area of responsibility, including communicating ideas and possible solutions to the work group and management 3.3 Support team members to identify possible areas for improved practices in work area on Country 3.4 Report evidence of deterioration and wear to Traditional Owners,

Element	Performance criteria
	Cultural Managers and supervisor 3.5 Record maintenance work according to Aboriginal cultural protocols and approvals and requirements of work programs 3.6 Clean up site on completion of maintenance works according to Aboriginal cultural protocols and supervisor's instructions
4 Protect cultural place	4.1 Report any breach of legislation or enterprise regulations to Traditional Owners, Cultural Managers and supervisor 4.2 Maintain protective barriers and signs according to enterprise procedures and Aboriginal cultural practices 4.3 Provide information to workers and contractors to ensure significance of place is maintained, and that work meets environmental sustainability requirements, does not cause damage to surrounds, fabric or building, and materials, equipment and tools are removed at the completion of work

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW312A Maintain an Aboriginal cultural site.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW312 Maintain an Aboriginal cultural site

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify appropriate cultural authorities for a Community, place or for a cultural site
- consult with appropriate cultural authorities and obtain informed approval for works and access of specific persons
- assess the level of work required to maintain the cultural place
- carry out maintenance activities in accordance with organisational, environmental sustainability and Aboriginal cultural requirements
- report deterioration or damage to place according to Community protocols and requirements
- report incidents of breaches of legislation including vandalism
- determine the cultural rights and responsibilities when using Community knowledge, information and material
- apply work health and safety practices in the context of own work
- ensure sustainability practices are applied by all workers and contractors on site to minimise environmental degradation and deterioration of site.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- workplace health and safety requirements and responsibilities of own role
- sustainable environmental practices applicable to maintaining site
- traditional and Western modern techniques of site protection appropriate to the site
- range of maintenance works undertaken on cultural sites
- enterprise procedures for reporting deterioration or damage to place or reporting incidents
- site recording systems used by the enterprise or Community

- relevant archaeological practices and procedures
- Cultural and Heritage Legislation or National Parks and Wildlife Service (NPWS) legislation relevant to maintenance of an Aboriginal site.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy the current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW313 Apply knowledge of relevant legislation to Aboriginal sites work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to work within the constructs of relevant legislation when working with Aboriginal-sites, cultural materials and cultural landscapes.

This unit applies to Aboriginal sites workers working on Country or in other cultural and heritage contexts where legislative requirements are in place. The unit applies to working either as an autonomous sites worker or under the supervision and cultural authority of Traditional owners or Elders for specific Country.

This unit applies to all Aboriginal sites workers. However, cultural beliefs and practices vary across locations and communities and in some situations non-Aboriginal learners may not be able to access the cultural knowledge or materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research the relevant legislation	1.1 Identify the legislative requirements that relate to Aboriginal sites work 1.2 Identify the purpose of legislation and environmental and sustainability requirements which apply to own work context
2. Identify relevant legislative provisions	2.1 Identify the laws that protect Aboriginal sites 2.2 Clarify compliance requirements with supervisor to confirm understanding and to ensure consistency of application across the organisation 2.3 Consult with experts to address any competing interests arising from different pieces of legislation with jurisdiction over the one Aboriginal cultural site, landscape or material 2.4 Carry out Aboriginal sites work within the constructs of relevant legislation
3. Identify stakeholder requirements	3.1 Communicate with clients and stakeholders to identify their needs in relation to relevant legislation 3.2 Provide referrals for stakeholders to expert advisors or advisory organisations 3.3 Recognise own limitations and professional boundaries 3.4 Conduct own Aboriginal sites work in accordance with legislative requirements and following Aboriginal cultural protocols and values

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCASW311A Apply relevant legislation in Aboriginal-sites work.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW313 Apply knowledge of relevant legislation to Aboriginal sites work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- work within the constructs of relevant legislation in their work with Aboriginal sites, cultural materials and cultural landscapes
- identify and apply relevant legislation to the circumstances appropriately and accurately
- identify relevant compliance requirements affecting Aboriginal sites work in a specified jurisdiction
- use referral options and other expertise to assist in interpreting and applying legislative requirements
- communicate basic legal concepts and legislative language to Aboriginal clients and stakeholders in culturally appropriate way.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- how Cultural and Heritage Legislation or relevant National Parks and Wildlife Service (NPWS) legislation applies to Aboriginal sites work
- other legislation that may impact on Aboriginal sites work
- organisations to which appropriate referrals can be made.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

The assessor must satisfy the current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCASW501 Survey and report on Aboriginal cultural sites

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to survey and report on Aboriginal cultural sites.

This unit applies to those working in Aboriginal communities and on Country in cultural landscapes and with cultural sites and objects. The unit applies to working with lore/law men and women either as an autonomous sites worker or under the supervision and cultural authority of Traditional Owners or Elders for specific Country and is also applicable to the work of repatriation workers and anthropologists.

This unit applies to all Aboriginal sites workers. However, cultural beliefs and practices vary across locations and communities however and in some situations non-Aboriginal learners may not be able to access the cultural knowledge or materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Aboriginal Sites Work (ASW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify, communicate and consult with key stakeholders	<p>1.1 Work with cultural authorities to identify appropriate persons within Communities who hold cultural knowledge relevant to determining the cultural significance of Aboriginal places and heritage</p> <p>1.2 Develop and implement communication and consultation systems that place Aboriginal cultural protocols and values at the forefront and accommodate stakeholder concerns and interests</p> <p>1.3 Confirm traditional ownership of Aboriginal sites, cultural material, and objects</p> <p>1.4 Ensure approval and permissions are obtained from relevant Traditional Owners and Cultural managers for work to be carried out and for access to the Aboriginal site for the specific persons who will conduct work</p> <p>1.5 Complete any necessary submissions for conducting Aboriginal cultural sites surveys</p> <p>1.6 Develop working relationships with key stakeholders that assist in the management of culturally significant places</p> <p>1.7 Scope and document client needs for deliverables required in a formal sites survey report</p> <p>1.8 Manage planning and assessment processes, ensuring they are in accordance with the Burra Charter process and other existing industry guidelines and legislation</p>
2. Manage collection of initial site data	<p>2.1 Source and verify site plans and maps including topographical maps</p> <p>2.2 Identify and acquire required resources</p> <p>2.3 Prepare a base plan of the site</p> <p>2.4 Undertake site orientation and define and verify location, geographic and operational boundaries</p> <p>2.5 Identify and record current land use and environmental problems and threats</p> <p>2.6 Identify and record covenants that could affect the site or report</p> <p>2.7 Ascertain climate and weather conditions from historical data</p>
3. Compile a site inventory	<p>3.1 Categorise and record site context, location and site information data</p> <p>3.2 Categorise and record features data</p> <p>3.3 Identify and record cultural material, objects, properties and relevant physical characteristics on site inventory according to</p>

Element	Performance criteria
	<p>archaeological or scientific protocols</p> <p>3.4 Undertake relevant field research in accordance with safe work policies and procedures</p> <p>3.5 Implement appropriate techniques and tools and relevant archaeological practices and procedures</p> <p>3.6 Locate structural elements and confirm existing services and facilities</p> <p>3.7 Record the presence, location and/or extent of other relevant site constraints</p> <p>3.8 Develop limits of acceptable change in the forms of deterioration and damage to the places of cultural significance to legislative and enterprise requirements</p>
4. Review, assess and record the site data	<p>4.1 Engage relevant expertise and consultant services when required</p> <p>4.2 Conduct an assessment of cultural significance</p> <p>4.3 Document a statement of cultural significance</p>
5. Determine the impact of threats to the site	<p>5.1 Identify threats to culturally significant places, both external and internal to the area under consideration</p> <p>5.2 Undertake a risk assessment of all threats to determine potential impact on sites and associated cultural landscape</p> <p>5.3 Develop and implement risk management strategies and protection/conservation measures to control risks</p> <p>5.4 Develop and document a risk management report that incorporates an impact analysis</p> <p>5.5 Document policy changes required to address the threats</p>
6. Document a site survey report	<p>6.1 Document site information into a site assessment report or site survey report</p> <p>6.2 Incorporate all relevant data from the site assessment into assessment report in line with client needs and the requirements of relevant legislation and regulations</p> <p>6.3 Provide and record specific recommendations for remedial action of site conservation and mitigation of site problems</p> <p>6.4 Formulate and document recommendations for appropriate risk controls of site hazards</p> <p>6.5 Store and maintain survey and assessment data as part of professional practice</p> <p>6.6 Inform and advise client-stakeholder of the content and implications of the report and present a copy</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCASW501A Survey and report on Aboriginal cultural sites.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCASW501 Survey and report on Aboriginal cultural sites

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify appropriate Aboriginal cultural authorities for a Community, place or site
- identify key stakeholders to be consulted in relation to owners and custodians of cultural and Community knowledge, information or material and cultural significance
- develop and implement consultation processes
- survey and assess Aboriginal cultural sites using appropriate techniques, tools and relevant archaeological practices
- incorporate the cultural significance, heritage values and conservation issues of an Aboriginal cultural site into report documentation
- identify threats and develop controls to mitigate and manage the risk of deterioration, damaging incidents or loss of cultural integrity
- prepare a site survey report to meet Community and enterprise needs
- complete submissions required to carry out a site survey
- observe Aboriginal cultural protocols in dealing with stakeholders and land managers.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- authentic and authoritative sources for Aboriginal cultural information, material and expression able to be accessed and shared
- site survey techniques, procedures and processes
- archaeological and scientific research techniques relevant to survey Aboriginal cultural site
- monitoring of site including fabric deterioration, damage and likely causes of deterioration and damage

- cultural rights and responsibilities when using Community knowledge, information and material
- general understanding of impacts of natural resources, such as geological settings, ecological processes, and interaction between natural and cultural processes
- provisions in the Australian Natural Heritage Charter and the Burra Charter and Guidelines and how they relate to surveying and reporting on Aboriginal sites
- design and methodology of consultation processes
- policy analysis and development of impact statements
- the range of conservation strategies for cultural areas
- data submission systems and reporting requirements
- components of Cultural and Heritage Legislation or National Parks and Wildlife Service (NPWS) legislation relevant to surveying Aboriginal cultural sites.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy the current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBAC101 Support agricultural crop work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide support to others undertaking agricultural cropping activities.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work alongside a supervisor and undertake defined routine activities. They exercise limited autonomy and identify and seek help with simple problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for	1.1 Identify the materials, tools and equipment required according to

Element	Performance criteria
agricultural crop work	lists provided or supervisor's instructions 1.2 Conduct checks on all materials, tools and equipment and report any insufficient or faulty items to the supervisor 1.3 Load and unload materials using correct manual handling techniques to minimise damage to the load and the vehicle 1.4 Select and check suitable personal protective equipment 1.5 Identify hazards in agricultural crop work and report to the supervisor 1.6 Apply enterprise work health and safety policies to crop work
2. Undertake agricultural crop work as directed	2.1 Follow instructions and directions provided by supervisor and seek clarification when necessary 2.2 Perform cropping work in a safe and environmentally appropriate manner according to enterprise guidelines 2.3 Communicate with other staff and customers in a positive and professional manner 2.4 Report problems or difficulties in completing work to required standards or timelines to supervisor
3. Handle materials and equipment	3.1 Follow supervisor's instructions to store waste material produced during cropping work in a designated area 3.2 Handle and transport materials, equipment and machinery appropriately 3.3 Maintain a clean and safe work site
4. Clean up on completion of cropping work	4.1 Store or dispose of materials according to supervisor's instructions 4.2 Clean, maintain and store tools and equipment according to manufacturer's specifications and supervisor's instructions 4.3 Apply enterprise biosecurity policies 4.4 Report work outcomes to the supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBC101A Support agricultural crop work.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBAC101 Support agricultural crop work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare tools and equipment
- demonstrate crop support activities
- handle basic materials and equipment
- follow work instructions
- clean up after work activities
- follow enterprise work health and safety policies in the context of own work
- follow enterprise biosecurity policies in the context of own work
- follow enterprise sustainability practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- safety procedures
- materials, tools and equipment for cropping work
- undertaking of work as directed
- handling of materials and equipment
- procedures for cleaning up on completion of work.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBC201 Assist agricultural crop establishment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist others to prepare for agricultural crop establishment.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for agricultural crop establishment	1.1 Follow supervisor instructions about planting

Element	Performance criteria
operations	1.2 Select and prepare appropriate machinery, equipment and tools 1.3 Identify work health and safety hazards in crop establishment and report to supervisor 1.4 Select, use and maintain suitable personal protective equipment
2. Prepare the site for crop establishment	2.1 Remove and dispose of old crop and other waste materials appropriately 2.2 Apply appropriate soil amendments as directed by supervisor 2.3 Follow the crop production plan as directed by supervisor 2.4 Implement crop protection as directed by supervisor 2.5 Mark out the planting pattern as required by the crop production plan 2.6 Operate machinery, equipment and tools appropriately
3. Carry out establishment operations	3.1 Follow instructions to treat planting material 3.2 Handle and transport planting material 3.3 Follow the planting plan
4. Complete establishment operation	4.1 Clean and sterilise tools and equipment appropriately 4.2 Dispose of all containers, leftover fluids, waste and debris according to enterprise policies and minimising the impact on the environment 4.3 Complete all required workplace records appropriately 4.4 Apply enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBC201A Assist agricultural crop establishment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC201 Assist agricultural crop establishment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- communicate with supervisor and team members
- carry out ground preparation of the area for planting
- read and follow planting plan
- apply pre-planting soil treatments
- calibrate the planting equipment
- treat and plant seed
- apply fertiliser with seed at sowing or as a separate operation
- apply herbicides under supervision
- record all details of sowing
- operate a range of crop establishment machinery
- follow enterprise work health and safety policies in the context of own work
- follow enterprise biosecurity policies in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- importance of correct timing and procedures for crop planting
- field hygiene and quality control in regard to crop establishment
- a range of pre-planting soil treatments and their importance
- methods of waste disposal causing minimal impact on the environment
- hazards and follow safety directions
- communication with team members and supervisor
- equipment calibration

- measurement of quantities of treatment
- determination of spacing's and planting patterns
- machinery operation to manufacturers specifications and enterprise procedures
- safe application of appropriate agricultural chemicals
- enterprise work health and safety and biosecurity polices.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBC202 Assist agricultural crop maintenance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist others to maintain agricultural crops.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for agricultural crop maintenance	1.1 Follow instruction for crop maintenance activities and clarify any

Element	Performance criteria
operations	special operating instructions 1.2 Select and prepare appropriate machinery, equipment and tools 1.3 Identify work health and safety hazards in crop maintenance and report to supervisor 1.4 Select, use and maintain suitable personal protective equipment
2. Assist with the implementation of maintenance operations	2.1 Assist with the implementation of the crop weed control program 2.2 Assist with the implementation of the crop pest and disease control program 2.3 Assist with the implementation of the crop nutrition program 2.4 Assist with the implementation of paddock maintenance duties 2.5 Assist with the implementation of any appropriate irrigation duties
3. Complete maintenance operation	3.1 Clean and sterilise tools and equipment appropriately 3.2 Dispose of all containers, leftover fluids, waste and debris according to enterprise policies and minimising the impact on the environment 3.3 Complete all required workplace records appropriately 3.4 Apply enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBC202 Assist agricultural crop maintenance.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC202 Assist agricultural crop maintenance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare machinery, equipment and tools to maintain crops
- conduct scheduled routine checks on machinery and vehicles for oil levels, tyre pressures, water levels and greasing points
- assist with cropping duties including weed control, pest and disease control, crop nutrition and paddock maintenance
- report the presence of weeds, pests and disease in crops
- record the details of crop maintenance
- identify hazards and follow safety directions at work
- read and interpret a range of workplace information
- calibrate equipment
- measure quantities of treatment
- operate machinery to manufacturer's specifications and enterprise procedures
- safely apply under supervision appropriate agricultural chemicals in weed and pest control programs
- follow enterprise work health and safety policies in the context of own work
- follow enterprise biosecurity policies in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- operations of a range of cropping machinery
- importance of correct timing and procedures for crop maintenance
- weed control in crops

- pest and disease control
- crop nutrition
- methods of waste disposal causing minimal impact on the environment
- enterprise work health and safety and biosecurity policies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBAC203 Assist agricultural crop harvesting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist agricultural crop harvesting.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for agricultural crop harvesting	1.1 Confirm crop harvesting instructions with the supervisor

Element	Performance criteria
operations	1.2 Select and prepare machinery, equipment and tools 1.3 Identify work health and safety hazards in crop harvesting, assess risks and report to the supervisor 1.4 Select, use and maintain appropriate personal protective equipment
2. Prepare harvesting machinery and vehicles for crop harvesting operations	2.1 Ensure harvesting machinery and vehicles are fuelled 2.2 Conduct routine checks for oil levels, tyre pressures, and water levels and greasing points 2.3 Confirm instructions regarding location of the day's harvesting program, special operating instructions or work procedures
3. Assist with harvesting of crops	3.1 Assist the operation of harvesting machinery and ancillary equipment appropriately and to suit crop conditions 3.2 Maintain the hygiene of all surfaces that come into contact with the crop 3.3 Assist in regularly checking and adjusting harvester and ancillary equipment where required
4 Complete harvesting operation	4.1 Clean harvesting machinery and vehicles appropriately 4.2 Dispose of all containers, leftover fluids, waste and debris according to enterprise policies and minimising the impact on the environment 4.3 Apply enterprise biosecurity policies 4.4 Complete all required workplace records appropriately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA203 Assist agricultural crop harvesting.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC203 Assist agricultural crop harvesting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and follow safety directions
- communicate with supervisor
- calibrate equipment
- measure quantities of treatment
- operate machinery to manufacturer's specifications and enterprise procedures
- prepare harvesting machinery and equipment to harvest crops
- operate vehicles and machinery safely and as directed to support the harvesting team
- carry out routine checks and refuelling of harvesting vehicles and machinery
- dispose of waste liquids and harvest debris according to environmental procedures
- record information as requested
- follow enterprise work health and safety policies in the context of own work
- follow enterprise biosecurity policies in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- harvesting machinery operation and equipment basic maintenance
- harvesting machinery and equipment servicing
- hazard identification and safe work practices in harvesting
- types of crops and their characteristics
- crop hygiene requirements
- enterprise work health and safety and biosecurity policies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBC204 Prepare grain storages

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to safely prepare storages, surrounding areas and equipment in readiness for receiving grain at an acceptable level of hygiene. This unit applies to workers in specialist grain storages or on grain farms.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all work in confined spaces must comply with state and federal legislation requirements.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to work in bulk material storage area	1.1 Follow the work program and clarify with supervisor 1.2 Identify work health and safety hazards in grain storage and report to supervisor and implement suitable controls 1.3 Select, use and maintain suitable personal protective equipment 1.4 Select, prepare and maintain appropriate equipment and tools
2. Prepare storage area	2.1 Clean the storage site of weeds, dust and spillage appropriately 2.2 Dispose refuse appropriately 2.3 Prepare and maintain the storage site appropriately
3. Prepare storages	3.1 Clean bulk material storages appropriately of all residues 3.2 Check bulk material storages for structural safety, damage or deterioration, and repaired or reported appropriately 3.3 Prepare and erect temporary storages appropriately
4. Prepare bulk material handling machinery	4.1 Clean bulk material handling machinery appropriately to be free of contamination and residues 4.2 Assist in the adjustment and setting bulk material handling equipment appropriately 4.3 Prepare bulk material handling equipment according to manufacturer's instructions and enterprise requirements
5. Complete maintenance operation	5.1 Record workplace information 5.2 Dispose of all waste and debris according to enterprise policies and minimising the impact on the environment 5.3 Clean and store tools and equipment appropriately 5.4 Apply enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBC204A Prepare grain storages.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC204 Prepare grain storages

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and follow safe work procedures
- erect simple temporary bulk material storages
- check equipment and storage facilities, and identify current or impending faults
- perform pre-operational checks and routine safety, service and maintenance procedures on tools, equipment and machinery
- operate hand and independently powered tools and cleaning equipment to industry standards
- clean, secure and store machinery and equipment
- handle hazardous substances (fuels) safely
- read and interpret manufacturer's specifications, work and maintenance programs, and Safety Data Sheets (SDS)
- prepare the storage area for access by grain carriers
- prepare grain storages by removing all residues and checking structure
- work in confined spaces in accordance with State/Territory legislation, where required
- prepare and test grain handling machinery
- communicate with supervisor
- follow enterprise work health and safety policies in the context of own work
- follow enterprise biosecurity policies the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- range of construction methods, potential hazards, safety and structural requirements for storage

- erection and dismantling for types of temporary storage used by organisation
- organisation and commodity quality requirements for grain storage
- grain storage hygiene requirements
- typical signs of structural damage to be documented and reported
- pre-operational and safety checks, servicing and maintenance procedures for tools and equipment
- machinery maintenance procedures and operating principles
- machinery and equipment cleaning, storage and protection methods
- appropriate action in contingency situations
- organisation requirements for protective equipment and safe practices in relation to work health and safety
- State/Territory legislation in respect to working in confined spaces
- potential hazards associated with the operation of basic tools and equipment
- regulations and codes of practice with regard to work health and safety, environment and the use and control of machinery and equipment
- personal protective clothing and equipment and when and how it should be used
- organisational recording and reporting procedures.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBC301 Conserve forage

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to conserve forage. This includes controlling risks associated with conservation of forage activities such as risk of fire from moisture content creating excessive temperature of hay stacks, potential contact with overhead power lines and exposure to noise and dust.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices. All machinery is operated to manufacturer's specifications.

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare for forage conservation	1.1 Confirm forage conservation options using the production plan 1.2 Identify risk factors for spoilage in forage conservation such as fire, vermin and air in silage 1.3 Confirm that paddock conditions are suitable for forage production 1.4 Prepare forage conservation machinery and equipment 1.5 Ensure clear access to paddocks for harvesting and transport machinery 1.6 Prepare storage facility for selected forage conservation method 1.7 Identify work health and safety hazards in forage conservation and assess risks
2. Prepare paddocks for forage conservation	2.1 Close paddock to stock access at appropriate time 2.2 Report on the growth stage of the crop for harvest 2.3 Control pests, weeds and diseases to maintain forage bulk and quality
3. Make forage	3.1 Implement work health and safety procedures for forage conservation 3.2 Monitor weather conditions 3.3 Identify dry matter target and assess dry matter content of forage material for the forage operation 3.4 Mow, condition, tedder and rake swaths depending on weather conditions and forage drying targets 3.5 Conduct harvesting activities 3.6 Apply technology to ensure most efficient performance of operations 3.7 Check equipment during harvesting operations regularly for wear and damage 3.8 Bale, wrap, compact, seal or store forage to the storage plan 3.9 Load, transport, and store or compact (if required) forage appropriately 3.10 Store forage to minimise risk of spoilage and combustion
4. Complete operations	4.1 Complete records appropriately 4.2 Dispose of all waste and debris appropriately 4.3 Clean and service machinery and ancillary equipment appropriately 4.4 Test or sample stored forage for quality 4.5 Report on environmental impacts of forage conservation activities such as effluent run off to supervisor

Element	Performance criteria
	4.6 Apply enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBC301A Conserve forage.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC301 Conserve forage

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare paddocks for forage conservation
- apply forage conservation methods
- harvest, prepare and store forage
- record work activities
- interpret and implement forage conservation requirements
- operate and maintain forage harvesting equipment
- assess risks and implement work health and safety procedures for forage conservation
- correct use of technology to improve efficiency
- perform harvesting operations
- follow enterprise workplace health and safety policies in the context of own work
- follow enterprise biosecurity policies in the context of own work
- follow enterprise sustainability practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- silage and hay conservation systems and methods
- factors affecting the quality of silage and hay
- dry matter content, quality and hygiene requirements
- range and functions of silage and haymaking machinery and equipment
- common weeds, pests and diseases associated with crops and pastures
- role of technology in improving efficiency
- types and application of personal protective equipment

- legislation and regulations including licensing requirements in relation to forage operations
- risks associated with conservation of forage activities including risk of fire from moisture content creating excessive temperature of hay stacks; potential contact with overhead power lines; and exposure to noise and dust
- risk factors including animal health and weather
- environmental risks and impacts of forage conservation.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBC302 Establish pastures and crops for livestock production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish pastures and crops for livestock production.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare for pasture and crop establishment	1.1 Confirm the pasture and crop establishment program with supervisor 1.2 Conduct pre-treatment (including inoculation) of seed prior to sowing where required 1.3 Select appropriate sowing methods for crop and pasture species 1.4 Apply appropriate fertilisers 1.5 Select and operate machinery and equipment appropriately 1.6 Identify work health and safety hazards in crop and pasture establishment and assess risks
2. Implement pasture and crop establishment program	2.1 Implement work health and safety controls for crop and pasture establishment 2.2 Prepare machinery and equipment for sowing 2.3 Calibrate seeding and fertilising equipment 2.4 Conduct pasture and crop sowing appropriately 2.5 Ensure efficient performance of sowing operations including the use of technology where appropriate 2.6 Apply appropriate fertilisers and pesticides
3. Implement grazing strategies during establishment	3.1 Use livestock to conduct stubble and fallow weed control as part of an integrated pest management program where appropriate. 3.2 Use livestock to conduct stubble, ground cover, competition or weed control during establishment. 3.3 Implement appropriate controlled grazing of crops and pastures during pasture and crop establishment 3.4 Implement appropriate grazing management according to sustainable land management practices

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBC302A Establish pastures and crops for livestock production

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC302 Establish pastures and crops for livestock production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- operate machinery and equipment
- calibrate boom spray and drill and fertiliser spreader
- identify pests and diseases
- identify pasture and crop species (both seed and seedlings)
- identify and control weeds
- handle chemicals safely
- mix and inoculate seed
- interpret and implement crop and pasture production plans
- assess existing pastures and crops to maximise livestock production
- sow and monitor new pastures and crops
- select pasture species, sowing method and application appropriate for optimal yield
- manage grazing systems including weed and stubble control
- control pests and weeds without damage to the crop or pasture
- demonstrate correct use of technology to improve efficiency
- follow enterprise work health and safety policies
- follow enterprise sustainability practices.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of grasses, legumes and crops
- types of seed inoculants and fertilizers
- seed and fertilizer placement for optimal germination and growth

- integrated weed control including chemical application, cultural practices and grazing management
- safe use of chemicals and machinery
- role of technology in improving efficiency
- advantages and disadvantages of pasture and crop establishment programs
- timing of pasture and crop establishment
- enterprise work health and safety policies
- procedures for minimising environmental impacts.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA303 Prepare to receive grains and seeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare to test grains and seeds at receival facilities.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes.

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to work	1.1 Identify and report on work health and safety hazards and risks in grain handling to supervisor 1.2 Select and use appropriate personal protective equipment 1.3 Follow enterprise work health and safety policies
2. Maintain hygiene in receival storage facilities	2.1 Clean and inspect receival and storage areas 2.2 Ensure receival area is free from potential contaminants 2.3 Inspect facilities and identify and report items that require maintenance or repair
3. Prepare testing equipment for use	3.1 Assemble testing equipment manufacturers instructions 3.2 Check equipment calibration and arrange for recalibration if required 3.3 Inspect testing equipment and identify and report items requiring maintenance or repair 3.4 Clean testing equipment and ensure it is free from residue
4. Prepare to provide service to growers or suppliers	4.1 Collate all documentation and information including conflict and dispute resolution procedures 4.2 Record information on receival and store all documents and data appropriately
5. Prepare for storage of grains and seed	5.1 Confirm arrangements for appropriate segregation of grain and seed 5.2 Confirm site transfer arrangements 5.3 Inspect conveying equipment and identify and report any items requiring maintenance or repair 5.4 Apply enterprise biosecurity policies as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBC303A Prepare to receive grains/seeds.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA303 Prepare to receive grains and seeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and assess risks in grain/seed receival area
- operate and maintain of grain/seed testing equipment
- inspect and clean receival and storage areas and equipment
- source grower/supplier information
- identify grain/seed types
- use personal protective equipment
- identify defects such as split grains/seeds, undersize, chaff, weed seeds
- prepare the site and maintain hygiene
- prepare testing equipment
- liaise with growers and/or contractors
- maintain segregation of grains/seeds and arrange storage
- follow work health and safety policies in the context of own work
- follow enterprise biosecurity policies in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- grain/seed receival processes and industry practice
- calibration requirements for testing equipment
- types of testing equipment such as protein, oil content, moisture etc
- requirements for segregation, traceability and hygiene
- impact of residues including chemical
- seed and grain industry grains receival standards and quality assurance requirements

- legislation, regulations and policies for Work Health and Safety and biosecurity
- segregation strategies/methods
- conflict and dispute resolution.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA304 Test grains and seeds on receipt

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to test grains and seeds on receipt.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes.

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare sampling and testing equipment for	1.1 Clean, maintain, test and calibrate testing and sampling

Element	Performance criteria
use	instruments appropriately 1.2 Identify and report repairs and maintenance of sampling and testing equipment 1.3 Identify work health and safety hazards in grain testing and assess risks
2 Identify grains on receipt	2.1 Inspect load to confirm commodity type and determine presence of contaminants 2.2 Record supplier information
3. Collect grains samples for testing	3.1 Follow sampling protocols and conduct appropriate sampling 3.2 Apply appropriate processes to prevent mixing or contamination of samples 3.3 Prepare samples for testing 3.4 Collect and maintain appropriate sample information records
4 Perform initial tests on samples	4.1 Follow handling procedures to prevent mixing or contamination of samples 4.2 Operate testing equipment to perform required tests in accordance with manufacturer's instructions, enterprise and industry practice 4.3 Record results of initial testing appropriately 4.4 Use visual recognition and industry reference material to determine the level of defects and contaminants 4.5 Compare test results with specifications to determine the grade or reject the sample 4.6 Observe appropriate policies and procedures with regard to rejection of product
5 Despatch samples to testing facilities	5.1 Pack and label samples appropriately 5.2 Prepare appropriate records of testing requirements 5.3 Despatch samples to testing facility
6. Prepare for storage of grains and seed	6.1 Conduct appropriate segregation arrangements of grain and seed 6.2 Complete required site transfer arrangements 6.3 Inspect conveying equipment and identify and report items requiring maintenance or repair 6.4 Apply enterprise biosecurity policies as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA304A Test grains and seeds on receipt.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA304 Test grains and seeds on receipt

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify work health and safety hazards and implement safe operating procedures
- identify grain and seed types
- take consistent samples
- identify defects such as split grains and seeds, undersize, chaff, weed seeds, damage
- read and interpret commodity standards
- store and dispatch grains and seeds samples and maintain hygiene
- conduct sampling and initial testing
- operate electronic and non-electronic testing equipment
- record samples for further testing
- communicate with customers and maintain records
- follow enterprise work health and safety policies in the context of own work
- follow enterprise biosecurity policies in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- safe operating procedures for handling and storing grain
- grain/seed testing processes
- industry standards and codes of practice
- testing parameters for grains such as protein, weight, oil content, moisture, defects, sprouts etc
- testing parameters for seed such as genetic purity, cultivar, dead, abnormal and hard seed, germination potential, foreign matter

- analysis and consequence of test result
- segregation strategies/methods, traceability and hygiene
- impact of residues including chemical
- industry practice, standards and quality assurance requirements in relation to grains sampling and testing
- workplace health and safety, company, industry and regulatory requirements
- sampling and testing protocols
- enterprise biosecurity policies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBC305 Undertake preparation of land for agricultural crop production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare land for agricultural crop production.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare for cultivation	1.1 Confirm work requirements from the planting plan with supervisor 1.2 Confirm the identified method and order of cultivation from the planting plan with supervisor 1.3 Identify work health and safety hazards in land preparation and assess risks implement suitable controls 1.4 Select, use and maintain appropriate personal protective equipment
2. Prepare the cultivating equipment	2.1 Confirm appropriate vehicles and equipment required for site cultivation with supervisor and select according to the planting plan 2.2 Confirm that vehicles and equipment are serviced and check that worn parts are replaced and vehicles are adjusted for the conditions 2.3 Dispose of all containers, leftover fluids, waste and debris from the maintenance and servicing work appropriately 2.4 Record all maintenance and servicing appropriately
3. Cultivate soil	3.1 Implement appropriate work health and safety controls 3.2 Carry out removal of previous crop or land clearance debris and incorporate or burn appropriately 3.3 Follow the cultivation plan and complete for each paddock 3.4 Select, use and maintain appropriate personal protective equipment 3.5 Operate vehicles and equipment appropriately 3.6 Apply technology to ensure most efficient performance of operations 3.7 Check and adjust vehicles and equipment regularly 3.8 Confirm the timelines, resource and quality requirements of the planting plan
4. Prepare site for planting	4.1 Complete the planting layout and soil profiles to the planting plan 4.2 Conduct identified weed and pest control measures 4.3 Apply fertilisers, ameliorants, or other pre-planting treatments appropriately 4.4 Confirm the environmental implications of site preparation with supervisor and take identified action
5. Complete land preparation operations	5.1 Clean and store vehicles and equipment appropriately 5.2 Dispose of all containers, leftover fluids, waste and debris according to enterprise policies and minimising the impact on the environment 5.3 Complete all required records and documentation organisational

Element	Performance criteria
	requirements 5.4 Apply enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBC305A Undertake preparation of land for agricultural crop production.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC305 Undertake preparation of land for agricultural crop production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret production and planting plans, produce standards, quality specifications and work procedure documents
- measure materials and site plan specifications
- operate, adjust and calibrate cultivation equipment safely
- complete pre- and post-operational checks on tools, vehicles and equipment
- perform routine safety, service and maintenance procedures on tools, cultivator and equipment
- demonstrate correct use of technology to improve efficiency
- read and interpret manufacturer specifications, work and maintenance plans, and Safety Data Sheets (SDS)
- communicate effectively with supervisor
- follow enterprise work health and safety policies in the context of own work
- follow enterprise biosecurity policies in the context of own work
- follow enterprise sustainability practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- methods of cultivating a range of soil types
- environmental issues of cultivating soil for planting, such as drainage and irrigation systems, soil amelioration and waste disposal procedures
- a range of pre-planting treatments, their purpose and method of application
- operation and maintenance of planting equipment
- role of technology in improving efficiency

- work health and safety guidelines, procedures and principles, including manual handling and exposure to hazardous substances
- enterprise biosecurity and sustainability policies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBAC306 Establish agricultural crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish agricultural crops.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

Operating machinery carries risk and candidates should observe all enterprise and manufacturer's requirements.

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare machinery and equipment for use	1.1 Select and prepare appropriate machinery and equipment for the work plan 1.2 Attached and calibrate equipment appropriately 1.3 Identify work health and safety hazards in crop establishment, assess risks and implement controls in line with enterprise policies
2. Prepare for agricultural crop establishment	2.1 Monitor soil and weather conditions 2.2 Follow soil conservation and sustainable land management practices and procedures 2.3 Confirm soil test results and identify appropriate soil amendments 2.4 Confirm seeding, fertiliser, and pest and weed control requirements against the work plan and prepare appropriately 2.5 Prepare contingency plans for unusual seasonal conditions
3. Sow the crop	3.1 Implement work health and safety controls for crop establishment 3.2 Follow the work plan to conduct seeding and fertiliser applications 3.3 Apply technology to ensure most efficient performance of operations 3.4 Coordinate pest and weed control treatment with seeding and fertiliser applications as required 3.5 Identify environmental implications associated with sowing operations, assess impacts and implement appropriate procedures
4. Complete seeding operations	4.1 Maintain seeding, machinery and equipment operation records appropriately 4.2 Report machinery and equipment damage, malfunctions or irregular performance appropriately 4.3 Clean, secure and store machinery and equipment in line with manufacturer specifications and enterprise requirements 4.4 Apply enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBAC306A Establish agricultural crops

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA306 Establish agricultural crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe operating procedures
- sow seed and apply fertiliser at the required placement and rate
- identify types of weeds and insects harmful to crop establishment
- perform pre-operational and safety checks, servicing and maintenance on machinery and equipment
- calibrate, operate machinery and attach/detach equipment
- demonstrate emergency operating procedures in normal and adverse conditions
- recognise and report machinery damage, faults or malfunctions and perform minor repairs
- demonstrate safe, environmentally responsible and sustainable land management practices
- monitor and minimise impacts to the environment associated with sowing operations
- correct use of technology to improve efficiency
- read and interpret manufacturer specifications, work and maintenance plans, and MSDS
- obtain relevant licences and permits
- clean, secure and store machinery and equipment
- record and report equipment faults, workplace hazards and accidents
- assess and calculate the application of fertiliser/pesticide requirements and application rates
- calibrate equipment and calculate volumes, consumption and servicing requirements
- prepare and service machinery and equipment
- carry out tillage and apply pre-planting treatments
- carry out sowing operation and fertiliser application
- monitor the environmental impacts of establishing the crop
- clean, secure and store machinery and equipment

- keep records of the sowing operation
- follow enterprise work health and safety policies in the context of own work
- follow sustainability practices in the context of own work
- follow enterprise biosecurity policies in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- crop types, preparation of seeds, seeding methods and application techniques
- fertiliser types, rates of application and crop nutrient requirements
- effects of weather conditions (normal and adverse) on seeding and fertilising applications
- operating principles and operating methods for machinery and equipment
- pre-operational and safety checks, servicing and maintenance procedures for seeding machinery and equipment
- principles of weight distribution with regard to load shifting and vehicle movement
- role of technology in improving efficiency
- sustainable land management and soil conservation techniques
- positive environmental practices, negative environmental impacts and minimisation measures associated with seeding operations
- procedures for cleaning, securing and storing machinery, equipment and materials
- enterprise policies with regard to seeding operations, and recording and reporting routines
- relevant state/territory legislation, regulations and codes of practice with regard to workplace health and safety and the use and control of pesticides and fertilizers
- Personal Protective Equipment and when and how it should be used
- relevant state/territory legislation and regulations with regard to licensing requirements and the use and control of machinery and equipment
- enterprise biosecurity and sustainability policies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBAC307 Maintain agricultural crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain agricultural crops.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

Operating machinery carries risk and candidates should observe all enterprise and manufacturer's requirements.

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor & assess agricultural crop condition, growth and requirements	1.1 Monitor crop health regularly and record observations 1.2 Report deviation from expected growth and vigour 1.3 Identify, monitor and report weeds, pests and diseases 1.4 Follow directions to establish sites for regular measurement of soil moisture 1.5 Measure moisture levels and calculate soil water percentage using soil probe 1.6 Report observations of crop ripening to manager to determine the timing of harvest
2. Undertake crop health operations	2.1 Identify hazards and implement appropriate controls 2.2 Select, use and maintain appropriate personal protective equipment 2.3 Follow label instructions and any specialist advice 2.4 Apply specialist sprays appropriately for growth stages 2.5 Apply technology to ensure most efficient performance of operations 2.6 Conduct any required chipping or spot spraying 2.7 Assess, record and report crop growth stages and keys 2.8 Apply water as required 2.9 Consider adverse environmental impacts when performing all applications
3. Complete cleaning and hygiene operations	3.1 Clean and maintain equipment appropriately 3.2 Dispose of all containers, leftover fluids, waste and debris from the maintenance and servicing work according to enterprise policies and minimising the impact on the environment 3.3 Complete all required records and documentation appropriately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA307A Maintain agricultural crops.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA307 Maintain agricultural crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- detect differences and variations in crop growth
- report/communicate such differences to the supervisor/farm owner
- observe and report on health and growth of the crop
- monitor pests and disease in crops
- assess crop maturity
- apply sprays and fertilizers as directed
- measure soil moisture and relate data to crop requirements
- apply technology to ensure most efficient performance of operations
- follow enterprise work health and safety policies in the context of own work
- follow sustainability practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- appropriate legislative requirements, manufacturer's instructions and organisation procedures/instructions
- potential hazards associated with the operation of basic tools and equipment
- general machine maintenance procedures
- machinery operating principles and safe operating methods
- environmental impacts associated with the operation of machinery and equipment in a harvesting context
- organisation recording and reporting procedures
- symptoms of crop lacking health and vigour

- signs of pest and disease infestation, moisture stress and nutrient deficiencies
- hygiene requirements for agricultural crops and equipment that comes into contact with the crop
- types and uses of herbicides, insecticides and other pesticides and alternative pest control methods (non-chemical)
- role of technology in improving efficiency
- work health and safety and pesticides legislative and enterprise policies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA308 Undertake agricultural crop harvesting activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake agricultural crop harvesting activities.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

Operating machinery carries risk and candidates should observe all enterprise and manufacturer's requirements.

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to harvest agricultural crops	1.1 Determine requirements for the work to be undertaken, method and order of harvesting from the harvest strategy and confirm with supervisor 1.2 Identify work health and safety hazards in crop harvesting and assess risks 1.3 Select and maintain appropriate personal protective equipment 1.4 Identify environmental impacts of harvesting the crop and take required action 1.5 Complete windrowing or swathing appropriately 1.6 Sample crop for moisture content and report to supervisor to assess timing of harvest 1.7 Identify hygiene standards for the crop and the paddock from the harvest strategy or the crop storage plan
2. Prepare the harvesting equipment	2.1 Clean harvesting machinery and other equipment appropriately 2.2 Assess and service all machinery and equipment, replace required parts and adjust for harvesting conditions 2.3 Dispose of all containers, leftover fluids, waste and debris from the maintenance and servicing work appropriately 2.4 Record all maintenance and servicing activities appropriately
3. Harvest crops	3.1 Implement work health and safety controls for crop harvesting 3.2 Follow and complete the harvest strategy for each paddock, including implementing fire prevention measures 3.3 Operate harvesting machinery and ancillary equipment appropriately and to suit crop conditions 3.4 Apply technology to ensure most efficient performance of operations 3.5 Maintain the hygiene of all surfaces that come into contact with the crop 3.6 Check regularly and adjust harvester and ancillary equipment where required
4. Complete harvesting operations	4.1 Clean and store equipment, attachments and other ancillary equipment appropriately 4.2 Apply any required insecticides appropriately 4.3 Dispose of all containers, leftover fluids, waste and debris according to enterprise policies and minimising the impact on the environment

Element	Performance criteria
	4.4 Move harvesting equipment is moved between sites and on public roads appropriately 4.5 Complete all required records and documentation appropriately 4.6 Apply enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA308A Undertake agricultural crop harvesting activities.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA308 Undertake agricultural crop harvesting activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- handle and manoeuvre harvesting equipment
- operate crop harvesting machinery and equipment
- implement correct use of technology to improve efficiency
- implement procedures for seed handling and hygiene
- identify hazards and implement work health and safety procedures for all harvest tasks
- complete pre- and post-operational checks on tools, harvesting machinery and equipment
- perform routine, service and maintenance procedures on tools, harvesting machinery and equipment
- sample crops to assess moisture content and maturity/ripeness of the crop
- monitor efficiency of harvesting equipment and make adjustments to height and other settings
- transport, clean and store harvesting equipment
- use of industry standard terminology to describe agricultural harvesting activities
- follow work health and safety policies in the context of own work
- follow biosecurity policies in the context of own work
- follow sustainability practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- handling and manoeuvring of harvesting equipment
- operation of crop harvesting machinery and equipment
- role of technology in improving efficiency

- procedures for seed handling and hygiene
- hazards and work health and safety procedures for all harvest tasks
- pre- and post-operational checks on tools, harvesting machinery and equipment
- routine, service and maintenance procedures on tools, harvesting machinery and equipment
- enterprise biosecurity policies and sustainability practices.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBC310 Maintain pastures and crops for livestock production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain pastures and crops for livestock production.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

Operating machinery carries risk and candidates should observe all enterprise and manufacturer's requirements.

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor & assess agricultural pasture and crop condition, growth and requirements	1.1 Monitor pasture and crop growth, nutrient status and health regularly and record observations 1.2 Report deviation from expected growth and vigour 1.3 Identify, monitor and report weeds, pests and diseases 1.4 Monitor soil fertility and plant nutrition where required 1.5 Follow directions to establish sites for regular measurement of soil moisture where required. 1.6 Measure moisture levels and calculate soil water percentage using soil probe or other measuring tools 1.7 Report observations of pasture and crop ripening to manager to determine the timing of harvest
2. Undertake pasture and crop health operations	2.1 Identify work health and safety hazards and implement appropriate controls 2.2 Select, use and maintain appropriate personal protective equipment 2.3 Contribute to an Integrated pest and plant health strategy to address pasture / crop health and growth issues 2.4 Select and use equipment to apply treatments where required 2.5 Follow label instructions and any specialist advice 2.6 Apply specialist sprays appropriately for growth stages 2.7 Apply technology to ensure most efficient performance of operations 2.8 Conduct any required chipping or spot spraying 2.9 Assess, record and report pasture and crop growth stages and keys 2.10 Apply water as required in irrigated situations 2.11 Consider adverse environmental impacts when performing all applications
3. Complete cleaning and hygiene operations	3.1 Clean and maintain equipment appropriately 3.2 Dispose of all containers, leftover fluids, waste and debris from the maintenance and servicing work appropriately 3.3 Follow enterprise biosecurity procedures 3.4 Complete all required records and documentation appropriately
4. Implement grazing strategies	4.1 Contribute to an integrated pest management program using livestock to conduct stubble and fallow weed control 4.2 Implement appropriate grazing program to maintain pasture and

Element	Performance criteria
	crop production for grazing 4.3 Respond to changes in quantity and quality of available pasture and crop with appropriate grazing management

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC310 Maintain pastures and crops for livestock production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- detect differences and variations in pasture and crop growth
- report/communicate such differences to the supervisor/farm owner
- observe and report on health, nutrition and growth of the pasture and crop
- monitor pests and disease in pastures and crops
- assess pastures and crop maturity
- apply sprays and fertilizers as directed
- measure soil moisture and relate data to crop requirements
- apply technology to ensure most efficient performance of operations
- monitor the productivity and feed intake of grazing livestock
- assess the impact of grazing on pasture and crop productivity
- follow enterprise work health and safety and animal welfare policies and procedures.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- potential hazards associated with the operation of basic tools, equipment and machinery
- general machine maintenance procedures
- machinery operating principles and safe operating methods
- role of technology in improving efficiency
- environmental impacts associated with the operation of machinery and equipment
- organisation recording and reporting procedures
- symptoms of pasture and crop lacking health and vigour
- signs of pest and disease infestation, moisture stress and nutrient deficiencies

- hygiene requirements for equipment that comes into contact with the pastures and crops
- types and uses of herbicides, insecticides and other pesticides and alternative pest control methods (non-chemical)
- work health and safety and pesticides, legislation
- different livestock grazing habits
- enterprise sustainability practices.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBAC401 Manage pastures for livestock production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage pastures for livestock production.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a pasture	1.1 Assess pasture types on property and seasonal production

Element	Performance criteria
management program	<p>potential and limitations</p> <p>1.2 Confirm or modify livestock production and enterprise objectives to develop production targets achievable by each pasture type</p> <p>1.3 Assess grazing and rest period requirements of pasture types for pasture quality, quantity and persistence considerations</p> <p>1.4 Assess nutrient requirements for pastures to determine appropriate fertiliser and soil ameliorant program</p> <p>1.5 On properties / paddocks with irrigation, determine appropriate irrigation schedules for each soil and pasture type using assessed water requirements, rainfall, Readily Available Water and evapo-transpiration data</p> <p>1.6 Identify and plan grazing and fodder conservation strategies</p> <p>1.7 Determine infrastructure and resources required to support grazing management</p> <p>1.8 Identify and account for budgetary constraints appropriately</p> <p>1.9 Develop appropriate pasture management program</p> <p>1.10 Identify hazards in pasture management and assess risks</p>
2. Implement pasture management program	<p>1.1 Identify work health and safety hazards and implement controls</p> <p>1.2 Monitor pasture capacity appropriately</p> <p>1.3 Implement planned strategic grazing to reduce or eradicate areas of weed infestation and maintain ground cover</p> <p>1.4 Determine fertiliser and soil ameliorant applications and rates appropriate to pasture type, soil analysis and production targets, and applied accordingly</p> <p>1.5 On properties / paddocks with irrigation, monitor soil moisture and schedule watering</p> <p>1.6 Apply technology to ensure most efficient performance of operations</p> <p>1.7 Develop and implement appropriate processes to minimise waste, soil degradation and environmental impacts</p>
3. Monitor pasture growth and fodder production	<p>3.1 Determine longer term trends in weed, pest and disease incidence and implement any identified changes to control measures</p> <p>3.2 Monitor soil structure and risks of erosion, determine changes to cultural practices, grazing management and drainage to improve soil quality</p> <p>3.3 On properties with irrigation, check and maintain irrigation and drainage systems</p> <p>3.4 Monitor grazing management to ensure sustainable pasture and optimal livestock production levels</p> <p>3.5 Identify feed surpluses and deficiencies and rectify appropriately</p> <p>3.6 Monitor pasture maturity and conduct seed harvesting to meet any</p>

Element	Performance criteria
	marketing and production targets
4. Review production level	4.1 Monitor pasture yields and evaluate against forecast production levels 4.2 Evaluate grazing programs for sustainability of the land and pasture resource, and livestock profitability 4.3 Collect and maintain physical and financial records of production for analysis and evaluation of production performance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBC401A Manage pastures for livestock production.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC401 Manage pastures for livestock production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine fertiliser, soil ameliorants and biological inputs required to support production
- set objectives and milestones for pasture production
- calculate costs
- determine soil quality and land use capability
- monitor the productivity and feed intake of grazing livestock
- develop grazing strategies and plan infrastructure required
- assess the impact of grazing on pasture productivity and resilience
- identify pasture species and estimate dry matter production of pasture
- assess options to control weed infestation
- identify strategies for pest and disease control
- establish production targets for each pasture type in an enterprise
- develop a pasture management program to meet production targets and enterprise objectives
- carry out strategic grazing to reduce or eradicate areas of weed infestation
- monitor soil health and grazing management to ensure sustainable pasture and optimal livestock production levels
- monitor pasture yields and evaluate against forecast production levels
- correct use of technology to improve efficiency
- maintain relevant physical and financial records for pasture and livestock production
- implement work health and safety policies and procedures
- implement enterprise environmental management and sustainability practices.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- land and soil conditions
- pasture species and growing requirements
- pasture grazing strategies
- nutrient requirements and soil fertility
- environmental management strategies in land use
- safe handling processes for fertilisers
- infestation patterns for different types of weed
- role of technology in improving efficiency
- work health and safety legislative and enterprise requirements
- relevant environmental codes of practice, legislation and regulations relating to farm production.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA402 Plan a pasture establishment program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan a pasture establishment program.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine requirements of the	1.1 Assess existing pasture for retention or removal

Element	Performance criteria
pasture establishment program	1.2 Identify appropriate pasture species and cultivars that are best suited to soil, climate, seasonal conditions and livestock goals and calculate, cost and confirm availability with suppliers 1.3 Select appropriate pasture establishment procedures that are consistent with seasonal factors, site and soil characteristics, production plans and the resources and equipment available 1.4 Assess technology to ensure most efficient performance of operations 1.5 Plan post-planting care according to production needs, enterprise standards and site capabilities. 1.6 Identify and plan for plant germination and nutrient requirements, taking into account soil characteristics 1.7 Identify, cost and confirm availability of resources, tools, equipment and machinery required for planting and post-planting care with suppliers, contractors and appropriate personnel 1.8 Identify work health and safety hazards associated with the pasture establishment program, assess risks and develop appropriate controls
Prepare and document the pasture establishment program	2.1 Prepare detailed plans based on the requirements of the pasture establishment program and production requirements 2.2 Produce plan which can be readily interpreted and understood by on-site personnel appropriately 2.3 Develop on-site planting procedures and schedules and post-planting care of pasture and communicate to staff 2.4 Plan for contingencies and identify applicable alternative strategies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA402A Plan a pasture establishment program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC402 Plan a pasture establishment program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine requirements of the pasture establishment program
- research suitable pasture species for the site and proposed land use
- prepare and document the pasture establishment program
- develop strategies for weed, pest and disease control
- assess pastures for production potential
- assess site factors
- select suitable pasture species and cultivars
- identify threats to pasture establishment including weeds, pests and diseases
- determine resources and equipment for planting and post-planting care
- prepare pasture establishment plans to meet livestock production plans and schedules
- demonstrate correct use of technology to improve efficiency
- implement enterprise work health and safety policies in the context of the work team
- implement sustainability practices in the context of the work team.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- pasture varieties and their characteristics, requirements and production potential
- establishment techniques of specific pasture species and cultivars
- advantages and disadvantages of a range of pasture establishment procedures
- maintenance requirements and practices for specific pasture species and cultivars after initial establishment
- livestock production systems and their integration with pasture production

- planning process, including costing and scheduling of works
- plant identification of pasture and weed species
- role of pasture in sustainable land use
- role of technology in improving efficiency
- environmental impacts of pasture establishment.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA403 Supervise agricultural crop establishment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise agricultural crop establishment, including planning and scheduling plantings based on the planting plan.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Source information for input to planting plan	1.1 Identify and obtain documents relating to crop production 1.2 Identify competing demands on human and physical resources

Element	Performance criteria
	<p>that may affect planting</p> <p>1.3 Identify the specific target area, or paddock, for planting from the production or management plan</p> <p>1.4 Obtain paddock history to identify crop and pasture rotation, and potential weed, pest & disease issues</p> <p>1.5 Obtain and evaluate soil test results to determine appropriate soil treatments</p> <p>1.6 Assess and account for trash levels and seedbed conditions</p>
2. Prepare planting plan	<p>2.1 Determine the agricultural crop and method(s) of planting to be used from the organisations production or management plan and availability</p> <p>2.2 Assess and calculate the resources required for the planting operations from the area to be sown, the method of planting to be used, and the available timelines</p> <p>2.3 Assess technology to ensure most efficient performance of operations</p> <p>2.4 Set target dates for planting, including the sequencing for planting across paddocks or crop areas, in line with the overall production or management plan</p> <p>2.5 Select the chemical applications that are required prior to and post planting and organise to occur appropriately</p> <p>2.6 Prepare the plan to ensure that any potential detrimental environmental impacts are minimised or eliminated, including the proper disposal of containers, drums and other waste</p> <p>2.7 Identify and assess hazards, and safe work practices for planting are implemented and overseen with staff</p> <p>2.8 Identify, arrange and obtain required approvals for the planting operations</p> <p>2.9 Determine measurable indicators, specifications and targets, based on the production or management plan and the method, resources and seed to be used</p>
3. Determine scheduling and key responsibilities	<p>3.1 Determine appropriate planting schedule</p> <p>3.2 Determine key responsibilities for required specific preparatory processes</p> <p>3.3 Determine key responsibilities for specific implementation processes</p> <p>3.4 Determine and implement appropriate recordkeeping processes, including the type, format, frequency and detail of any reporting required by both managers and operators</p> <p>3.5 Document the plan, including scheduling and key responsibilities</p>
4. Monitor and adjust the	4.1 Ensure adherence to monitoring points outlined in the

Element	Performance criteria
planting plan	implementation plan 4.2 Conduct checks to ensure that work health and safety procedures and site environmental requirements are being observed and followed 4.3 Communicate with operational staff and any contractors 4.4 Conduct checks to ensure that the required documentation is completed clearly and accurately during the progress of the planting process 4.5 Determine and implement any required corrective action or amendment to the planting plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA403A Supervise agricultural crop establishment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA403 Supervise agricultural crop establishment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and oversee safe operating procedures
- identify the seasonal conditions which affect crop establishment
- plan and schedule planting including amending plans during the operations
- recognise poor growth and lack of vigour caused by nutrient deficiency and incorrect planting depth
- observe, identify and react appropriately to environmental implications and work health and safety hazards
- plan the planting operation including timing and resources required
- correct use of technology to improve efficiency
- carry out pest, weed and disease control either pre or post planting if required
- supervise staff and monitor the planting operation
- implement work health and safety policies in the context of the work team.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- equipment that is required for a range of tillage methods, and pest and weed control prior to planting
- crop establishment requirements
- equipment servicing requirements
- role of technology in improving efficiency
- integrated pest and weed management techniques
- environmental controls and codes of practice applicable to the enterprise

- legislation, codes of practice and enterprise procedures for work health and safety and environmental management
- management practices and processes to minimise environmental impacts such as noise, soil degradation, and debris from planting operations.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA404 Plan and implement agricultural crop maintenance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and implement agricultural crop maintenance.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine condition of	1.1 Measure and assess soil moisture and calculate soil water

Element	Performance criteria
agricultural crops	percentage 1.2 Calculate water requirements to soil analysis data, standing crop, and forecast weather conditions 1.3 Assess nutrient requirements and availability for crops and identify deficiencies 1.4 Identify factors affecting crop capacity 1.5 Assess technology to ensure most efficient performance of operations 1.6 Identify work health and safety hazards in crop maintenance and assess risks
2. Determine pest control	2.1 Assess evidence of pests and disease and determine appropriate integrated control measures 2.2 Locate and identify areas of weed infestation for reduction or eradication 2.3 Select appropriate integrated control methods 2.4 Schedule suitable control methods appropriately 2.5 Maintain records on severity of infestations and treatments used
3. Manage crop health	3.1 Implement work health and safety controls 3.2 Monitor crop to maintain water and nutritional requirements for optimal production 3.3 Implement sustainable land management practices appropriately 3.4 Monitor weed and pest levels and modify the control program as required 3.5 Assess, document and analyse benefits from soil and plant inputs and treatments 3.6 Monitor and document cropping programs 3.7 Document and record relevant data for continual analysis and effective crop management

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA404A Plan and implement agricultural crop maintenance.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA404 Plan and implement agricultural crop maintenance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- refer to records of, and assess, soil health and nutrient status
- dispatch soil samples to laboratories
- carry out a soil health appraisal
- identify likely threats to crop from pests, weeds and diseases
- recognise damage to crop caused by weeds, pests or diseases
- recognise poor growth and lack of vigour in crop caused by nutrient deficiency
- record monitoring results
- plan and implement integrated control strategies to address nutrient deficiencies, disease outbreaks, pest and weed infestations
- accurately measure soil moisture and estimate irrigation needs if required
- apply pesticides or fertility treatments as required
- apply correct use of technology to improve efficiency
- communicate with industry, suppliers and other personnel
- read and interpret Safety Data Sheets (SDSs), production plans and analysis results
- estimate and measure pest control treatments
- assess crop needs accurately
- carry out crop cultural practices and treatments
- monitor and assess crop maturity
- ascertain water requirements from survey advice and weather forecasts
- measure soil moisture and interpret data accurately
- determine time of harvest with specialist advice
- implement work health and safety policies in the context of the work team
- implement enterprise sustainability practices.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- crop growth stages and keys
- crop growth requirements compared to soil nutrient status
- fertiliser and soil ameliorant types and application times, methods and rates
- chemical use if applicable
- factors leading to development of chemical resistance
- role of technology in improving efficiency
- integrated pest management strategies
- life-cycles of pest, diseases and weeds
- work health and safety legislative requirements
- relevant codes of practice with regard to the use and control of agricultural chemicals
- legislation and codes of practice with regard to environmental protection.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA405 Supervise agricultural crop harvesting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise agricultural crop harvesting.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for harvesting	1.1 Assess crop maturity and quality in readiness for harvesting

Element	Performance criteria
	1.2 Determine pre-harvest treatments for the control and eradication of pests and implement appropriately 1.3 Identify and comply with licence or permit requirements 1.4 Assess insurance requirements and plan and implement required risk management strategies 1.5 Identify work health and safety hazards and assess risks in crop harvesting
2. Determine harvest strategy	2.1 Estimate and calculate optimum timing to carry out harvest according to crop maturity assessment 2.2 Assess resource requirements appropriate to the size of the crop and estimated timing of harvest 2.3 Assess technology to ensure most efficient performance of operations 2.4 Arrange and confirm required labour and equipment to carry out harvesting operations within budgetary constraints 2.5 Identify and arrange appropriate requirements for fire prevention and control
3. Coordinate the harvest strategy	3.1 Implement work health and safety controls 3.2 Implement appropriate communication strategies 3.3 Implement harvesting operations and adjust as required according to weather, equipment and staff requirements 3.4 Coordinate and monitor equipment operation 3.5 Identify and control existing and potential biosecurity hazards appropriately
4. Complete harvest operation	4.1 Identify appropriate storage resources and strategies for drying grain 4.2 Segregate grain quality of grain to marketing grades and monitor for moisture content according to classification standards 4.3 Evaluate harvesting operations and outcomes against harvest strategy 4.4 Document and record information for continual analysis and effective planning management

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA405A Supervise agricultural crop harvesting.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBAAC405 Supervise agricultural crop harvesting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- organise and schedule the maintenance of plant and equipment
- establish strategies, procedures and controls for crop harvesting
- negotiate and arrange contracts and agreements
- implement safe workplace and positive environmental practices
- deal with weather and other contingencies
- establish strategies, procedures and controls for crop harvesting, including fire prevention and control plans
- correct use of technology to improve efficiency
- negotiate and arrange contracts and agreements
- estimate crop yields
- maintain budgetary controls
- assess crop maturity and quality in readiness for harvesting
- arrange storage and delivery requirements
- segregate grain for quality and monitor for moisture content
- implement work health and safety policies in the context of the work team
- implement biosecurity policies in the context of the work team.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- crop maturity and yield potential
- grain or seed quality
- functions and limitations of harvesting equipment

- role of technology in improving efficiency
- crop measurement techniques and parameters
- grain market information and sources
- location and relative skills and abilities of available contractors
- weather conditions which may affect the harvest
- relevant legislation, codes of practice and enterprise requirements for Work Health and Safety, contractor engagement, environment and pesticides
- environmental controls and codes of practice applicable to harvesting operations
- enterprise biosecurity policies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA406 Maintain grain quality in storage

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain grain quality in storage and includes assessing and maintaining hygiene in grain storage areas, as well as monitoring the grain for deterioration or pests and contaminants.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

Participants must check state and federal training requirements before using fumigants in grain storages.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Maintain hygiene in storage areas	1.1 Test storage conditions and facilities to maintain the standard of hygiene in stored grain 1.2 Identify, report and carry out repairs and maintenance 1.3 Apply treatments to storage facilities to maintain hygiene standards and in line with the grain storage program 1.4 Implement enterprise biosecurity policies 1.5 Record application of all treatments appropriately
2. Monitor grain from arrival to dispatch	2.1 Take samples and refer for testing before storing grain 2.2 Take regular samples to ensure purity standards of the grain 2.3 Check the grain quality at dispatch against the records taken at the point of storage 2.4 Take, prepare and forward test samples for analysis according to prescribed guidelines 2.5 Maintain and store records of grain movements in and out of storage as prescribed in the grain storage program 2.6 Research and recommend new technology, systems or practices that will improve or maintain grain quality in storage 2.7 Implement work health and safety policies for activities around the grain storage facilities
3. Monitor and maintain grain condition in storage	3.1 Conduct regular checks of grain in storage to maintain continued freedom from contaminants and deterioration 3.2 Conduct appropriate periodical checks of grain in long-term storage for quality factors and viability 3.3 Take, prepare and send samples of grain for testing in a laboratory setting appropriate to industry quality assurance and laboratory requirements 3.4 Create, maintain and keep records of grain tests and inspections appropriate to the grain storage program. 3.5 Use the schedule and methods outlined in the grain storage program to monitor condition of storage facilities 3.6 Take appropriate corrective action to maintain grain quality 3.7 Ensure that all activities around the grain storage facilities are undertaken appropriate to the grain storage program
4. Control weeds and pests in storage area	4.1 Monitor grain according to the monitoring points, targets and methods outlined in the grain storage program 4.2 Take samples the grain to test for pest infestation

Element	Performance criteria
	4.3 Prepare and forward sample for analysis appropriately 4.4 Control pests in storage to the grain storage program 4.5 Fumigate enclosed grain storage area clean the surrounding environment appropriately to the integrated pest management strategy in the grain storage program 4.6 Identify and control sources of any infestations appropriately to the integrated pest management strategy in the grain storage program 4.7 Ensure all pest control activities are undertaken appropriately to the grain storage program 4.8 Create, maintain and store records of treatments to the grain and storage facilities appropriately to the grain storage program 4.9 Create, maintain and store records of all chemical use in the storage facility, and the applicable withholding periods appropriately to the grain storage program

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA406A Maintain grain quality in storage.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBAC406 Maintain grain quality in storage

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- setup and operate fumigation and pesticide application equipment
- sample loads and grain in storage, and conduct a simple analysis
- create, maintain, use and keep clear and trackable records
- use a range of communication equipment, including in emergency situations
- inspect and test silos
- identify insects, pests and other factors that affect grain quality
- set up and operate inert atmosphere equipment
- handle and mix chemicals for baiting, fumigation, spraying, and other forms of application
- interpret monitored information on pests
- plan and schedule weed, pest and disease control including amending plans during the operations
- calculate mass and volumes of grain and grain storages
- implement pre-determined integrated pest management strategies
- monitor and maintain hygiene
- monitor and control pests and contaminants
- investigate and recommend options for technology, systems or practices that will improve grain quality
- implement work health and safety policies in the context of the work team
- implement enterprise biosecurity policies in the context of the work team.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, levels and control methods for a range of pests and contaminants
- silo and temporary storage configuration and operation
- chemical handling and dangerous goods requirements
- range of applicable pesticides, their uses, application methods and handling requirements
- grain commodity types, varieties and grades, marketing requirements and options for grain growers
- handling requirements for gas cylinders
- insect life cycles and optimum conditions for development
- Integrated Pest Management (IPM) principles and the procedures used within the organisation
- legislative requirements, codes of practice and enterprise procedures relating to the purchase, transport, storage, use and disposal of pesticides and fumigants, work health and safety and environment
- client's sampling and classification requirements
- common grain pests and their general control methods
- equipment used in grain storage facilities
- site hazards and sound management practices and processes to minimise noise, odours, and debris from grain storage operations
- chemical handling and dangerous goods requirements
- developments and options available for maintaining or improving the quality of grain during storage
- enterprise biosecurity policies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA407 Save, prepare and store agricultural seed

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to save, prepare and store agricultural seed.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select seed from	1.1 Calculate the quantity of seed required to sow the following

Element	Performance criteria
agricultural crops	season's crop 1.2 Calculate the area of crop needed to produce the required quantity of seed for the following season's crop 1.3 Select a portion of the crop to be used as seed, based on the calculated requirements and its health, vigour, and grain size 1.4 Record the soil type in the selected portion of the crop 1.5 Implement measures to improve seed and plant health, vigour and uniformity within the selected area 1.6 Identify application of any chemicals to the crop and consider detrimental environmental impacts 1.7 Implement enterprise work health and safety policies
2. Evaluate and grade seed	2.1 Assess grain variety for its suitability for the location, the soil, and the organisation's current marketing requirements after harvest 2.2 Research information regarding new varieties or trial results and progress for input to management decision-making 2.3 Grade the seed to the required size either on or off-site 2.4 Apply fungicidal and insecticidal dressings to the seed appropriately 2.5 Collect, prepare and forward test samples to the analysing body, according to the guidelines of that body 2.6 Collect, maintain and store records of observations, information gathered, and results of tests and grading appropriately 2.7 Refer records to the appropriate person for analysis and decision-making
3 Store seed	3.1 Select and hygienically prepare storage facilities 3.2 Transfer seed to the storage facility appropriately 3.3 Ensure seed is stored under conditions that maintain its quality and germination capacity 3.4 Conduct appropriate periodical checks of seed in long-term storage for quality factors and viability 3.5 Collect, prepare and forward seed samples for laboratory testing and analysis according to prescribed guidelines 3.6 Create, maintain and store records of seed storage, tests and inspections appropriately to the seed storage program 3.7 Monitor the condition of storage facilities using the schedule and methods outlined in the seed storage program and take appropriate corrective action to maintain seed quality 3.8 Ensure activities around the seed storage facilities are undertaken appropriately to the grain storage program
4. Collect and deliver	4.1 Establish delivery or supply terms and apply when collecting or

Element	Performance criteria
seed	delivering seed 4.2 Ensure seed sold or purchased conforms to local State and Federal legislation and regulations 4.3 Observe regulations relating to the interstate movement of seeds 4.4 Implement enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA407A Save, prepare and store agricultural seed.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC407 Save, prepare and store agricultural seed

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select appropriate seed tests
- apply pre and post-harvest treatments for seed
- identify varieties from growth patterns
- identify weed seeds and contaminants
- identify pests in stored grain and initiate control measures
- calculate volumes, capacities, areas, ratios for seed, storages, and chemicals
- keep, update and maintain records relating to test results, provenance, varieties, pest control measures, and other relevant information about the seed
- calculate the quantity of seed required for the following season
- grade and test seed and interpret the results
- store the seed for use in the following season
- maintain grain in storage to ensure maximum quality and yield when used
- implement work health and safety policies in the context of the work team
- implement enterprise biosecurity policies in the context of the work team
- implement enterprise environmental sustainability practices.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- identification of varieties
- seed treatment and cleaning measures
- sources of purchased seed
- inoculation treatments and seed dressings used within the organisation

- records and documentation required for tracking and handling of seed
- storage techniques and requirements for seed and grain
- environmental controls and codes of practice applicable to the enterprise
- relevant legislation and regulations relating to WHS, contractor engagement, chemical use and application, vehicle and plant use, and to the use, handling and sale of seed
- sound management practices and processes to minimise noise, odours, and debris from sowing operations
- enterprise biosecurity policies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA408 Manage agricultural crop production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage agricultural crop production.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who demonstrate deep knowledge in a specific technical area, take personal responsibility and exercise autonomy in undertaking complex work. They organise the work of self and others and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine	1.1 Select plant varieties that are best suited to soil, climate, seasonal

Element	Performance criteria
requirements for an agricultural crop establishment program	<p>conditions and marketing goals</p> <p>1.2 Determine required irrigation schedules where required for each soil and crop type based on assessed water requirements, rainfall and evapo-transpiration data</p> <p>1.3 Assess nutrient requirements for crops to determine appropriate fertiliser program</p> <p>1.4 Assess technology to ensure most efficient performance of operations</p> <p>1.5 Identify and maintain budgetary constraints</p> <p>1.6 Develop a crop establishment program appropriate to the crop production plan</p> <p>1.7 Identify work health and safety hazards and develop control strategies in establishing agricultural crops</p>
2. Implement crop maintenance	<p>2.1 Implement strategic grazing to reduce or eradicate areas of weed infestation</p> <p>2.2 Determine fertiliser applications and rates appropriate to crop type and applied accordingly</p> <p>2.3 Determine crop nutrient requirements to ensure sustainability and achievement of yield</p> <p>2.4 Monitor soil moisture and adjust watering schedule if appropriate</p> <p>2.5 Determine and implement processes to minimise waste and soil degradation appropriately</p>
3. Monitor an agricultural crop through to harvest	<p>3.1 Determine longer term trends in weed, pest and disease incidence, and implement any necessary changes to control measures</p> <p>3.2 Monitor soil structure and erosion and determine necessary changes to cultural practices, grazing management and drainage</p> <p>3.3 Check and maintain irrigation and drainage systems</p> <p>3.4 Monitor grazing management to ensure crop production levels</p> <p>3.5 Monitor crop maturity and undertake harvesting to meet marketing and production targets</p>
4. Implement the harvest strategy	<p>4.1 Follow the harvesting plan to apply pre-harvest pest control treatments where weather patterns permit</p> <p>4.2 Ensure adherence to all work health and safety and environmental requirements throughout the application of pre-harvest treatments and throughout the harvest</p> <p>4.3 Ensure that all required labour and equipment is ready and available at the scheduled place and time</p> <p>4.4 Commence the harvest at the scheduled time</p> <p>4.5 Follow the order of the harvest described in the harvesting plan</p> <p>4.6 Monitor harvesting operations and adjust to allow for weather,</p>

Element	Performance criteria
	contracting and equipment maintenance needs 4.7 Instruct truck, tractor and harvester operators on procedures to deliver each crop load at maximum quality
5. Record production	5.1 Maintain appropriate records of production for analysis and evaluation of production performance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA408 Manage agricultural crop production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply environmental protection strategies in land use
- set objectives and milestones for a cropping program
- determine soil quality and land use capability
- determine crop nutrient requirements and fertiliser requirements
- measure and assess quantities of fertiliser to meet plant requirements
- predict patterns of weed infestation
- manage irrigation processes to avoid soil degradation if applicable
- demonstrate use of technology to improve efficiency
- prepare budgets
- develop a cropping program for an enterprise
- plan for crop establishment
- monitor growing crops, provide inputs and carry out cultural practices as required
- develop a plan for the crop harvest
- monitor crop yields and evaluate production performance
- implement work health and safety policies in the context of the work team
- implement enterprise environmental sustainability practices in the context of the work team.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- land and soil conditions
- effects of soil characteristics on nutrient availability

- role of technology in improving efficiency
- budgeting and financial analysis techniques
- environmental protection strategies
- cultivation requirements for different types of crop
- safe handling processes for fertilisers
- infestation patterns for different types of weed
- integrated strategies for the management of pests, weeds and diseases
- work health and safety legislative requirements
- environmental legislation and codes of practice, relating to farm production.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA502 Manage forage conservation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage forage conservation.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who demonstrate deep knowledge in a specific technical area, take personal responsibility and exercise autonomy in undertaking complex work. They organise the work of self and others and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan for forage	1.1 Determine the resource needs and end use requirements of forage

Element	Performance criteria
conservation	<p>conservation in the farm production system</p> <p>1.2 Define forage conservation options and cost benefit</p> <p>1.3 Select appropriate paddocks for forage conservation with regard to species selection and target growth stage</p> <p>1.4 Select appropriate forage conservation machinery, equipment and personal protective equipment in accordance with manufacturer's specifications, work health and safety requirements and industry practice</p> <p>1.5 Assess technology to ensure most efficient performance of operations</p> <p>1.6 Ensure safe access to paddocks for harvesting and transport machinery</p> <p>1.7 Plan and prepare storage facility or system for selected forage conservation method</p> <p>1.8 Identify and minimise potential environmental impacts of forage conservation activities</p> <p>1.9 Negotiate contracts and costs including crop inputs, machinery, harvest area and storage sites where applicable</p> <p>1.10 Communicate details of work activities with workers or contractors where applicable</p> <p>1.11 Identify work health and safety hazards and risks in forage conservation and develop control strategies</p>
2. Prepare paddocks for forage conservation	<p>2.1 Identify need for fertiliser, irrigation, weed control and grazing or slashing before closing paddock to stock at appropriate time</p> <p>2.2 Identify optimum time for harvest of key species</p> <p>2.3 Monitor and control weeds, pests and diseases</p>
3. Oversee forage harvesting operations	<p>3.1 Establish dry matter targets for the selected method of forage conservation</p> <p>3.2 Monitor seasonal and current weather conditions to determine optimum time for harvest and to ensure quality</p> <p>3.3 Assess condition and dry matter content of the crop throughout the harvesting operation</p> <p>3.4 Select harvesting and conditioning machinery based on weather conditions and forage drying targets</p> <p>3.5 Ensure that harvesting activities are conducted in a safe, controlled and efficient manner</p> <p>3.6 Ensure that baling, wrapping, compacting, sealing or storage of forage is in accordance with storage plan</p> <p>3.7 Ensure that forage is safely loaded, transported and stored in accordance with work health and safety and quality requirements and to minimise spoilage and the risk of combustion</p>

Element	Performance criteria
4. Complete operation	4.1 Complete records in accordance with quality assurance requirements and industry practice 4.2 Ensure waste and debris is disposed of to minimise environmental impact 4.3 Ensure that machinery and ancillary equipment is cleaned and serviced in accordance with manufacturer's specifications, work health and safety requirements and industry practice 4.4 Conduct quality checks on stored forage 4.5 Monitor and minimise environmental impacts of forage conservation activities including concentration of nutrients at field out areas and effluent run-off 4.6 Implement enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBC502A Manage forage conservation.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA502 Manage forage conservation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess the need for and implications of forage conservation in the farming system
- select and implement a forage conservation system
- perform harvesting operations
- assess cost benefit and forage conservation options
- select appropriate forage conservation method
- select suitable forage conservation machinery
- apply correct use of technology to improve efficiency
- oversee harvest, forage preparation and storage
- record work activities
- implement work health and safety policies in the context of the work team
- implement enterprise biosecurity policies in the context of the work team
- implement enterprise environmentally sustainability practices.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- forage conservation options and cost benefit economic analysis
- silage and hay conservation systems
- factors affecting the quality of silage and hay
- dry matter content, quality and hygiene requirements
- range and functions of silage and haymaking machinery and equipment
- role of technology in improving efficiency
- common weeds, pests and diseases associated with crops and pastures

- types and application of personal protective equipment
- work health and safety legislation and regulations including licensing requirements in relation to forage operations
- risk factors including human and animal health, weather, harvesting and environmental
- enterprise biosecurity policies and environmental sustainability practices.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBAC503 Manage integrated crop and pasture production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage integrated crop and pasture production.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who demonstrate deep knowledge in a specific technical area, take personal responsibility and exercise autonomy in undertaking complex work. They organise the work of self and others and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a pasture and	1.1 Establish production targets for each crop and pasture type

Element	Performance criteria
crop program	<p>consistent with marketing and enterprise objectives</p> <p>1.2 Select plant varieties that are best suited to soil, climate, seasonal conditions and marketing goals</p> <p>1.3 Determine irrigation schedules, where required, for each soil and crop or pasture type based on assessed water requirements, rainfall and evapo-transpiration data</p> <p>1.4 Assess nutrient requirements for crops and pastures to determine appropriate fertiliser program</p> <p>1.5 Assess technology to ensure most efficient performance of operations</p> <p>1.6 Identify and maintain budgetary constraints appropriately</p> <p>1.7 Develop a pasture and crop program to meet production targets and enterprise objectives</p> <p>1.8 Identify work health and safety hazards in crop & pasture management and develop control strategies</p>
2. Implement pasture and crop management program	<p>2.1 Implement pasture and crop program and monitor pasture capacity appropriately</p> <p>2.2 Implement planned strategic grazing, where necessary, to reduce or eradicate areas of weed infestation</p> <p>2.3 Determine and conduct fertiliser applications and rates appropriate to crop or pasture type</p> <p>2.4 Apply crop and pasture nutrient requirements to ensure achievement of yield and sustainability of pasture</p> <p>2.5 Monitor soil moisture schedule watering, and adjust as required</p> <p>2.6 Determine and implement appropriate processes to minimise waste, soil degradation and environmental standards</p>
3. Monitor crop or pasture growth and fodder production	<p>3.1 Determine longer term trends in weed, pest and disease incidence and implement any necessary control measures changes</p> <p>3.2 Monitor soil structure and erosion, determine and implement any necessary changes to cultural practices, grazing management and drainage</p> <p>3.3 Check and maintain irrigation and drainage systems</p> <p>3.4 Monitor grazing management</p> <p>3.5 Integrate livestock into the cropping cycle through grazing of pastures returning to crop, stubbles and crop residues, and dual purpose crops</p> <p>3.6 Identify feed surpluses and deficiencies and take appropriate action</p> <p>3.7 Monitor crop or pasture maturity is monitored and conduct harvesting to meet marketing and production targets</p>
4. Review production	4.1 Monitor pasture and crop yields and evaluate against forecast

Element	Performance criteria
level	production levels 4.2 Evaluate efficiency and effectiveness of grazing and cropping programs and document for future best practice 4.3 Evaluate production performance of each enterprise and document for management program review 4.4 Maintain appropriate production records for production performance analysis and evaluation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA503A Manage integrated crop and pasture production.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA503 Manage integrated crop and pasture production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- measure and assess quantities of fertiliser
- apply environmental protection strategies in land use
- set objectives and milestones
- determine soil quality and land use capability
- predict patterns of weed infestation
- design irrigation processes to avoid soil degradation
- apply correct use of technology to improve efficiency
- assess financial strategies and prepare budgets
- develop a pasture and crop program to meet production targets and enterprise objectives
- maintain the productivity of crops and pastures in a farming system
- monitor soil structure and erosion and make required changes to cultural practices and grazing management
- implement grazing strategies to optimise pasture and livestock production levels and support the cropping program
- evaluate grazing and cropping programs for efficiency and effectiveness
- use physical and financial records of production to evaluate production performance
- implement work health and safety policies in the context of the work team.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- land and soil conditions
- effects of nutrients of soil types

- crop and pasture production financial analysis techniques
- environmental standards
- cultivation requirements for different types of crop
- safe handling processes for fertilisers
- role of technology in improving efficiency
- infestation patterns for different types of weed
- work health and safety legislation codes of practice and enterprise procedures.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBC504 Plan and manage a stored grain program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and manage a stored grain program.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who demonstrate deep knowledge in a specific technical area, take personal responsibility and exercise autonomy in undertaking complex work. They organise the work of self and others and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan grain storage	1.1 Collect and analyse organisational documentation and financial

Element	Performance criteria
program	information to develop the storage program 1.2 Identify, record and assess available storage facilities for suitability and capacity 1.3 Calculate and analyse projected grain production and delivery quantities, types and timeframes against storage capacity 1.4 Arrange any required temporary storage 1.5 Estimate timeframes and scheduling for delivery of grain to storage facilities on- and off-site 1.6 Prepare program to include plans for annual, seasonal and short-term periods, appropriate to achieve organisational goals and objectives 1.7 Document program, including scheduling and key responsibilities, and reporting type, format, frequency and detail required by managers and operators
2. Plan integrated pest control for the storage area	2.1 Organise grain testing and sampling for pest infestation 2.2 Record and analyse results of samples and tests for pest infestation 2.3 Develop and implement an integrated pest management program to control grain insects and other pests in storage 2.4 Determine monitoring points, targets and methods to identify possible development of resistance in insects 2.5 Ensure the selected pest control strategies relate to the requirements of the end use and to customers' expectations 2.6 Determine appropriate record keeping requirements and procedures to ensure compliance with the range of applicable regulations 2.7 Document the program, including scheduling and key responsibilities, including the type, format, frequency and detail of any reporting required by both managers and operators
3. Implement work health and safety program for grain storage area	3.1 Identify hazards within and surrounding the grain storage area(s) 3.2 Develop, document and implement procedures to minimise risks 3.3 Communicate work health and safety and risk minimisation procedures 3.4 Ensure the program describes the personal protective equipment and safety gear required to be used around the storage facilities 3.5 Determine record keeping requirements and implement procedures appropriately 3.6 Ensure the program includes the type, format, frequency and detail of any reporting required by both managers and operators
4. Manage the grain storage program	4.1 Implement the grain storage program 4.2 Schedule and organise activities for efficient transport and storage

Element	Performance criteria
	<p>of the grain</p> <p>4.3 Implement pest control strategies according to the integrated pest management program</p> <p>4.4 Ensure personal protective equipment and safety gear is provided to all people operating around the storage facilities</p> <p>4.5 Ensure that all work health and safety procedures are implemented by operational personnel</p> <p>4.6 Conduct checks to ensure that the performance indicators, targets and specifications are being met and make amendments to the program, where necessary</p> <p>4.7 Communicate regularly with operational personnel throughout the storage, transport, sampling and chemical application operations to ensure efficient and safe operation and progress</p> <p>4.8 Assess the impact and risk of existing and potential problems</p> <p>4.9 Identify potential problems and investigate likely causes</p> <p>4.10 Consider, analyse, review and recommend alternative solutions to appropriate personnel for a decision</p>
5. Maintain records of stored grain movement	<p>5.1 Create, maintain and store records and documentation as described in the grain storage program, the integrated pest management program, and work health and safety requirements</p> <p>5.2 Complete appropriate records and documentation throughout the storage program</p> <p>5.3 Ensure that the record keeping system is appropriate</p> <p>5.4 Implement enterprise biosecurity policies</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA504A Plan and manage a stored grain program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA504 Plan and manage a stored grain program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- cost benefit analysis of grain storage
- establish procedures and controls for implementation by others
- plan, schedule, monitor and amend plans for operations
- administer and co-ordinate operations on a site
- explain, and deliver instructions about the plans and scheduling of the grain storage operations to both staff and contractors
- observe, identify and react appropriately to environmental implications and work health and safety hazards
- plan for storage needs based on grain production estimates
- implement an integrated pest management (IPM) program for grain storage
- supervise procedures to manage work health and safety risk for the storage site
- schedule the storage and transport of grain
- supervise staff to monitor transport, storage, sampling and pest control procedures
- maintain records of grain storage to meet quality requirements
- implement work health and safety policies
- implement enterprise biosecurity policies.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- silo layout and operations, configuration, and maintenance procedures
- safe working practices, especially in confined spaces and at heights

- organisational priorities and policies in relation to production planning, work health and safety and chemical use
- organisational priorities and policies in relation to quality, personnel and operations
- pest control principles
- reporting and recording requirements within the organisation and as required by external authorities
- grain marketing and commodity prices
- use of technology in grain storage operations
- integrated pest and weed management techniques
- relevant legislation and regulations relating to work health and safety, contractor engagement, chemical use and application, site management, and vehicle and plant use
- sound management practices and processes to minimise noise, odours, and debris from grain storage operations
- enterprise biosecurity policies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBC505 Plan and manage long-term weed, pest or disease control in crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and manage long-term weed, pest or disease control in crops.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who demonstrate deep knowledge in a specific technical area, take personal responsibility and exercise autonomy in undertaking complex work. They organise the work of self and others and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Source information for input to weed, pest or disease control planning	1.1 Identify and access historical data, including recent data from organisational records for input to weed, pest or disease control planning 1.2 Research and collate information from other enterprises within the district 1.3 Use information regarding the characteristics of the crop(s) planned for, or under production 1.4 Research and collate information regarding the local geography, soil and climatic conditions 1.5 Consider and document the environmental implications of pesticide or herbicide use, alternative methods and non-chemical preventative methods 1.6 Assess technology to ensure most efficient performance of operations 1.7 Assess information and determine potential key information for input to planning decisions
2. Determine long-term weed, pest or disease control strategies	2.1 Analyse information gathered for suitable methods 2.2 Consider methods of control, including their impacts 2.3 Determine strategies for weed, pest or disease control to integrate the most suitable control methods with the proposed crops and the existing geography 2.4 Establish environmental controls and include in the plan 2.5 Identify work health and safety hazards, assess risks and incorporate suitable controls into the plan
3. Provide input to other planning processes	3.1 Incorporate selected weed, pest or disease control strategies into other organisational planning processes 3.2 Collect and use information regarding other planning processes in the weed, pest or disease control plan 3.3 Communicate information appropriately about the range of planning processes
4. Determine scheduling and key responsibilities	4.1 Determine appropriate scheduling for weed, pest or disease control 4.2 Determine key responsibilities for specific implementation processes 4.3 Determine record keeping requirements are determined and implement appropriate procedures 4.4 Document the plan, including scheduling and key responsibilities and ensure it includes the type, format, frequency and detail of any reporting required by both managers and operators
5. Monitor and adjust weed, pest or disease	5.1 Evaluate the effectiveness of the weed, pest or disease control

Element	Performance criteria
control strategies	strategies at key points, and implement any necessary adjustments 5.2 Identify, monitor and assess environmental impacts and work health and safety hazards relating to weed, pest or disease control throughout the implementation process 5.3 Identify and implement necessary modifications to the strategy 5.4 Implement enterprise biosecurity policies
6. Evaluate weed, pest or disease control strategies and record result	6.1 Analyse data, observations, and documentation from the implementation against the plan appropriately 6.2 Prepare recommendations for future strategies 6.3 Prepare a report that documents the implementation of the strategies and includes any difficulties or issues faced, the methods used for treatment, impacts on environmental and work health and safety, any recommendations for future work, results, costs and any available data analysis

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBAC505A Plan and manage long-term weed, pest or disease control in crops.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA505 Plan and manage long-term weed, pest or disease control in crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret monitored information on pest and weed numbers, density and control
- interpret, analyse and extract information from a range of sources and discussions
- plan and manage long-term weed, pest or disease control including amending plans during the operations
- plan land use incorporating appropriate weed, pest or disease control measures
- establish processes or strategies, procedures and controls for long-term weed, pest or disease control
- demonstrate correct use of technology to improve efficiency
- negotiate and arrange contracts and agreements
- explain, and deliver instructions about the plans and scheduling of the weed, pest or disease control operations to both staff and contractors, as well as suppliers, customers, and neighbours
- recognise poor growth and lack of vigour caused by weeds, pests or disease rather than nutrient deficiency
- observe, identify and react appropriately to environmental implications and work health and safety hazards
- interpret information on pest and weed numbers, density and control
- establish processes or strategies, procedures and controls for long-term weed, pest or disease control
- implement and monitor long-term weed, pest or disease control strategies
- use records and observations to evaluate weed, pest or disease control strategies
- plan land use incorporating long term weed, pest or disease control strategies
- implement work health and safety policies
- implement enterprise biosecurity policies.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- pest and weed species, including their life cycles and reproduction or multiplication capability
- integrated pest and weed management
- effects on crops of weeds, pests or diseases including competitive effects on crop yield; threshold levels; and the effects of alternative methods of control
- role of technology in improving efficiency
- environmental controls and codes of practice applicable to the enterprise
- relevant legislation and regulations relating to work health and safety, contractor engagement, chemical use and application, and vehicle and plant use
- environmental controls and codes of practice applicable to the business, and to the weed, pest or disease control operations
- sound management practices and processes to minimise noise, odours, and debris from weed, pest or disease control operations
- enterprise biosecurity policies.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA506 Manage the harvest of crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage the harvest of crops.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

Harvesting crops carries risk of fire. All harvesting activities shall be conducted appropriate to relevant regulations, legislation and guidelines as determined by the relevant fire authority.

This unit applies to individuals who demonstrate deep knowledge in a specific technical area, take personal responsibility and exercise autonomy in undertaking complex work. They organise the work of self and others and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine crop quality	1.1 Assess the potential crop yield using measurements made in the field 1.2 Test and assess the potential quality of the crop using quality parameters before harvest 1.3 Estimate the value of each crop using the measurements taken and assessments made before harvest
2. Determine crop readiness	2.1 Refer pre-harvest samples to the laboratory or marketing agent to determine the potential quality of the crop 2.2 Monitor weather patterns estimate the rate of ripening 2.3 Monitor crop maturity and estimate when the crop will be at its optimum and harvest commencement 2.4 Assess the incidence of pests and determine the requirement for, and the type of, pre-harvest treatment 2.5 Select pre-harvest treatments to ensure that the crop meets market requirements 2.6 Ensure adherence to all work health and safety and environmental requirements throughout the application of pre-harvest treatments
3. Assess the need for insurance	3.1 Confirm any commitments to insure the crop 3.2 Estimate the crop value 3.3 Insure the crop, if appropriate 3.4 Analyse, assess and implement appropriate strategies to manage financial risk
4. Plan harvest strategy	4.1 Estimate the appropriate harvest commencement date and the time span 4.2 Calculate equipment and labour resources required for harvest from the size of the crop and harvest time limitations 4.3 Analyse equipment and labour resources required against those available within the enterprise, and determine the amount of labour and equipment to be contracted 4.4 Assess technology to ensure most efficient performance of operations 4.5 Plan for and order any equipment preparation required prior to harvest 4.6 Plan application of required pre-harvest pest control treatments appropriately 4.7 Determine and arrange required licenses, permits and notifications

Element	Performance criteria
	4.8 Determine and describe the order of the harvest in the plan
5. Plan for work health and safety hazard management	5.1 Communicate with all harvesting personnel and ensure awareness of work health and safety hazards that may be present, their responsibilities for action, and the systems that are in place to deal with such hazards 5.2 Implement suitable controls to reduce work health and safety hazard risks 5.3 Monitor, identify and assess work health and safety hazards at each stage of the harvesting process
6. Plan for fire prevention and control	6.1 Evaluate the property and identify fire risks and hazards 6.2 Develop a fire prevention and control strategy that addresses the identified risks and hazards, including measures to be taken 6.3 Assess the fire prevention and control strategy, and the specific measures to be taken 6.4 Prepare appropriate fire breaks as identified in the strategy 6.5 Ensure that sufficient firefighting equipment meets appropriate fire authority standards or guidelines is available as prescribed in the strategy 6.6 Implement appropriate community fire control practices
7. Decide on storage and delivery requirements	7.1 Allocate crop storage facilities, and plan and arrange for immediate delivery of the crop to packing sheds, the bulk handling system, or other purchasers 7.2 Ensure that silos, storage bins and other containers are located to enable efficient harvesting and transport operations 7.3 Identify any work health and safety hazards from silo operation and implement risk minimisation practices 7.4 Plan storage for flexible marketing and distribution initiatives 7.5 Evaluate resources required for crop transport, engage contractors where required 7.6 Identify strategies and resources to dry crops appropriately
8. Manage harvest operations	8.1 Ensure harvest plan is adhered to 8.2 Ensure adherence to all work health and safety and environmental requirements 8.3 Monitor harvest operations to ensure efficient and timely completion 8.4 Monitor crop quality against the harvesting plan as the crop is harvested and segregate into the various marketing grades 8.5 Store each crop grade as determined by the harvesting plan 8.6 Implement enterprise biosecurity policies
9. Record production	9.1 Maintain appropriate records of production for analysis and

Element	Performance criteria
level and review cropping strategies	evaluation of production performance 9.2 Monitor and evaluate crop yields against forecast production levels

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA506A Manage the harvest of crops.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA506 Manage the harvest of crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan and implement harvesting operations, including amendment of these during the operation itself
- organise and schedule the maintenance of plant and equipment
- establish processes or strategies, procedures and controls for crop harvesting
- demonstrate correct use of technology to improve efficiency
- interpret, analyse and extract information from a range of sources and discussions
- assess potential yields
- negotiate and arrange contracts and agreements
- explain, and deliver instructions about the plans and scheduling of the harvest operations to both staff and contractors, as well as suppliers, customers, and neighbours
- observe, identify and react appropriately to environmental implications and work health and safety hazards
- estimate crop yield and value and monitor for harvest readiness
- plan for the resources that will be required for harvest
- negotiate insurance and equipment supply contracts
- develop risk management procedures for work health and safety, climate and fire risk
- organise for the logistics of the harvesting operation including harvesting, storage and delivery
- keep grain batches separate and monitor for pests or spoilage
- implement work health and safety policies in the context of the work team
- implement enterprise biosecurity policies
- implement enterprise environmental sustainability practices.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- capability and use of harvesting equipment
- role of technology in improving efficiency
- crop measurement techniques and parameters
- market information and sources
- contracting requirements for crop insurance
- management of the moisture content of crops, including drying and aeration
- storage options and local storage availability
- bushfire prevention and control legislation
- bushfire prevention and control strategies and equipment
- contact details for local fire services
- weather conditions which may affect the harvest
- relevant legislation and regulations relating to WHS, contractor engagement, chemical use and application, and vehicle and plant use
- environmental controls and codes of practice applicable to the business and to the harvesting operations
- sound management practices and processes to minimise noise, odours, and debris from the harvesting operations
- enterprise biosecurity policies and environmental sustainability practices.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBAC507 Develop production plans for crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop production plans for agricultural and horticultural crops.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who demonstrate deep knowledge in a specific technical area, take personal responsibility and exercise autonomy in undertaking complex work. They organise the work of self and others and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select crop species and	1.1 Establish production targets for each crop type, consistent with

Element	Performance criteria
variety	<p>marketing and enterprise objectives</p> <p>1.2 Assess and select crop types and varieties for their market potential and gross margin returns for the farm environment</p> <p>1.3 Select most profitable cultural practices and rotations, consistent with disease and pest management strategies, available machinery resources, and management for sustainability of resources</p> <p>1.4 Assess technology to ensure most efficient performance of operations</p> <p>1.5 Identify production risks for each crop and determine strategies to address these</p> <p>1.6 Identify environmental risks and develop appropriate strategies</p>
2. Establish yield potential and quality specification for crop	<p>2.1 Source relevant benchmark yields, where available, to assist setting target yields</p> <p>2.2 Analyse past production records and determine the key determinants of yield</p> <p>2.3 Use appropriate available models for calculating water use efficiency or other key determinants of yield to assist in setting target yields</p> <p>2.4 Establish quality specifications and target yields for all crops</p>
3. Prepare crop program	<p>3.1 Assess proposed crop land areas for nutrient, pest and disease status, water reserves, tillage requirements, and other factors before selecting crop variety</p> <p>3.2 Use records of chemical use for planning to reduce chemical resistance</p> <p>3.3 Select crop variety and plan paddock preparation, planting, fertilising and other treatments</p> <p>3.4 Determine optimum timing of planting, applications and treatments and prepare calendar of operations</p> <p>3.5 Determine cash flow budget for the cropping program</p>
4. Review production plan	<p>4.1 Plan logistical arrangements related to harvesting, transportation, marketing and other key production cycle operations</p> <p>4.2 Plan and check machinery and equipment requirements for the crop production cycle</p> <p>4.3 Assess work health and safety requirements of the production plan</p> <p>4.4 Identify and plan labour requirements for the crop production cycle</p> <p>4.5 Identify seed, fertiliser, pest and disease treatments and other input requirements</p> <p>4.6 Establish record keeping system provide data for the analysis of crop performance, and to meet other statutory requirements including records of chemical use</p>

Element	Performance criteria
	4.7 Review and amend production plan and documented as a final plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBA507A Develop production plans for crops.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA507 Develop production plans for crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare budgets and gross margins
- source and interpret relevant benchmark information from consultants or peers
- assess proposed crop land areas for nutrient status by sampling and testing soils and plant tissue
- analyse past production records
- select crop species and variety
- source and interpret relevant benchmark information
- select crop species and variety and determine yield potential for crop
- demonstrate correct use of technology to improve efficiency
- prepare crop programs
- review, amend and document the production plan
- prepare budgets and gross margins
- source and interpret relevant benchmark information
- prepare individual paddock plans and a whole farm cropping plan
- assess work health and safety implications of the plan.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- determinants of crop yield
- cultural practices related to cropping
- role of technology in improving efficiency
- market prices, gross margins, cash flow budgets

- benchmark performance indicators
- disease and pest management for relevant crops
- machinery and equipment requirements for cropping
- record keeping systems.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBA508 Apply plant biology to agronomic practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the application of introductory plant biology (plant taxonomy, plant morphology and plant physiology) to a wide range of agronomic practices including crop/pasture establishment, fertiliser use, irrigation, Integrated Pest Management (IPM), crop harvesting, grazing management and the provision of specialist agronomic advice.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to work as an agronomist. Work is normally undertaken without supervision.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Broad acre cropping (BAC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Apply plant taxonomy	1.1 Identify botanical terminology of plant taxonomy (plant kingdom

Element	Performance criteria
to agronomic practices	divisions, major plant families and genera) for plant classification 1.2 Apply the rules of plant nomenclature when naming plants 1.3 Describe the external features of plants – leaves, stems, flowers and fruits using botanical terminology 1.4 Identify a range of plants used in agronomy to species level, using plant keys and/or other references where required 1.5 Use correct botanical terminology to discuss plant taxonomy in agronomic practices
2. Identify plant functions and their impact on growth	2.1 Investigate and identify plant cell structures, their functions and the organisation of cells into primary tissues 2.2 Research the structure and functions of leaves, stems, root and flowers in relation to agronomic practices 2.3 Describe the processes and outcomes of photosynthesis, respiration and transpiration
3. Apply plant morphology to agronomic practices	3.1 Research, analyse and document specialist botanical knowledge of plant morphology (leaf, root, stem, flower and seed characteristics from development to maturity) for crop and pasture management 3.2 Use correct botanical terminology when discussing plant morphology and identifying growth stages of plants 3.3 Identify critical growth stages for crop/pasture monitoring, nutrient assessment and spray applications

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VU21630 Apply plant biology to agronomic practices.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBA508 Apply plant biology to agronomic practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- use appropriate authoritative references and resources for plant classification
- apply scientific concepts of plant biology to agronomic practices
- identify plants according to accepted taxonomic classifications.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- plant morphology
- plant taxonomy
- plant physiology
- plant nomenclature according to the rules and recommendations of the International Code of Botanical Nomenclature (ICBN) and the International Code of Nomenclature for Cultivated Plants (ICNCP)
- broad knowledge of agronomic practices.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK201 Support beekeeping work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist with routine beekeeping activities.

This unit applies to beekeepers who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for beekeeping work	1.1 Identify required materials, tools and equipment according to lists provided 1.2 Carry out checks on all materials, tools and equipment and report insufficient or faulty items 1.3 Use correct manual handling techniques when loading and

Element	Performance criteria
	unloading materials 1.4 Select personal protective equipment and check before use 1.5 Confirm the activity to be undertaken and take steps to control hazards and risks 1.6 Clarify instructions from supervisor where necessary
2. Undertake beekeeping work as directed	2.1 Carry out interactions with other staff, apiary site owners and customers in a professional manner 2.2 Follow supervisor's instructions with regards to handling and disposing materials 2.3 Use appropriate bee-handling techniques as required 2.4 Tell the supervisor if there are any problems or difficulties in completing work to required standards or timelines
3. Handle materials and equipment	3.1 Handle and transport materials, tools and equipment 3.2 Handle waste material produced during work 3.3 Maintain a clean and safe work site
4. Clean up on completion of work	4.1 Return materials to store or dispose of 4.2 Clean, maintain and store tools and equipment 4.3 Report work outcomes, seek feedback on performance and note any required improvements for future action

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK201A Support beekeeping work.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK201 Support beekeeping work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- handle frames and honey or other hive products for human consumption
- prepare and handle materials, tools and equipment
- repair and maintain hives
- work safely around and with bees.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of beekeeping work
- bee-handling techniques
- food safety regulations
- tools and equipment.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK202 Use a bee smoker

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to use a bee smoker when undertaking bee husbandry tasks.

This unit applies to beekeepers who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare bee smoker for use	1.1 Confirm the activity to undertake with supervisor 1.2 Confirm that climatic and other conditions permit the use of a bee smoker and adjust planned activities where required 1.3 Check bee smoker and components to ensure that they are in good repair and serviceable, and any faults are addressed

Element	Performance criteria
	1.4 Check personal protective equipment for serviceability and ensure correct fit 1.5 Identify hazards associated with the use of a bee smoker and take appropriate steps to minimise risks to self and others 1.6 Make sure there is an adequate water supply and tools available for fire control 1.7 Assess weather conditions, nectar flow and strain of bee to interpret defensive behaviour of colony 1.8 Add suitable fuel to bee smoker and light it 1.9 Operate bee smoker bellows to produce and maintain a steady and dense stream of cool smoke
2. Use bee smoker to manage bees	2.1 Blow smoke into entrance of hive and allow sufficient time before hive is opened 2.2 Puff additional smoke over frames and supers after hive is opened and direct smoke at bees 2.3 Ensure bees remain under control while working on hives by placing smoker within easy reach, keeping it alight and producing cool smoke until operations are complete 2.4 Place bee smoker in a cleared spot when not in use and have fire extinguishment materials and equipment on hand

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK202A Use a bee smoker.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK202 Use a bee smoker

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and use safe work practices
- anticipate defensive behaviour of colony
- select suitable fuel
- keep a bee smoker alight and functioning while carrying out bee husbandry tasks
- monitor the effects of smoke on bees, including the wearing off of effects
- make bee smoker safe after completing operations according to fire and biosecurity procedures.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of smoking bees
- effects of smoke on bees and hive products
- suitable fuel for bee smokers
- when to use a bee smoker and why
- current fire regulations.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK203 Open and reassemble a beehive

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to open and reassemble a beehive to carry out routine bee husbandry and related tasks.

This unit applies to beekeepers who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

Where work requires the use of load-shifting equipment, appropriate training and certification must be provided according to state and territory safety and licensing requirements.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to open a beehive	1.1 Select, check and use personal protective equipment (PPE) 1.2 Identify work health and safety hazards and take action as directed 1.3 Identify tools and equipment required for the work 1.4 Conduct checks on tools and equipment and report insufficient or

Element	Performance criteria
	faulty items 1.5 Assess weather conditions and nectar availability and adjust planned activities to minimise risk of robbing and hive stress 1.6 Follow site quarantine and biosecurity protocols where in effect 1.7 Use appropriate manual or mechanical handling techniques and minimise damage to beehive
2. Open the beehive	2.1 Control bees throughout the opening process by using smoke 2.2 Carry out work from a safe position in relation to beehive 2.3 Raise beehive lid using hive tool and remove queen excluder, frames and supers as required 2.4 Place all removed frames and supers on upside down lid to ensure they remain dirt free
3. Reassemble the beehive	3.1 Place brood frames back into hive in the same position from which they were removed unless manipulation is being undertaken 3.2 Replace all frames in appropriate boxes and replace queen excluders and supers 3.3 Replace beehive lid and where used, secure with hive fastener

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK203A Open and reassemble a beehive.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK203 Open and reassemble a beehive

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- correctly wear appropriate personal protective equipment (PPE)
- minimise the risk of robbing and hive stress
- raise a beehive lid using a hive tool and bee smoker
- reassemble the beehive
- work safely around bees.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of opening and reassembling beehives
- bee behaviour, particularly when a beehive is disturbed
- components of a beehive.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK204 Construct and repair beehives

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to construct and repair beehives.

This unit applies to beekeepers who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to construct or repair beehives	1.1 Identify required materials and equipment 1.2 Check beehive components are suitable for use 1.3 Return faulty components to storeroom and replace, repair or dispose of 1.4 Select, check and use suitable personal protective equipment

Element	Performance criteria
	1.5 Identify and report work health and safety hazards
2. Construct or repair beehives	2.1 Inspect beehives requiring repair to identify scope of job and materials and tools required 2.2 Burn or send beehives for irradiation where visual inspection or testing indicates presence of American foulbrood disease 2.3 Assemble or repair beehive components using replacement parts, nails, joins, glues and construction techniques 2.4 Apply appropriate timber treatments to beehive 2.5 Mark constructed or repaired beehive components clearly in accordance with State or Territory legislation 2.6 Report problems or difficulties in completing work to required standards or timelines 2.7 Maintain a clean and safe work site while working
3. Clean up on completion of work	3.1 Return, store or dispose of materials 3.2 Clean, maintain and store equipment 3.3 Report work outcomes or note in organisational records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK204A Construct and repair beehives.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK204 Construct and repair beehives

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assemble construction materials and check that they present no risk of contamination to the environment or apiculture products
- select and use tools appropriate to the task
- construct and repair beehives
- mark beehives as they are constructed or repaired
- clean and maintain equipment after completion of work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of beehive construction and repair
- construction and health standards that have to be maintained for beehives in broad terms
- hive components and the materials required to construct or repair them.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK301 Manage honey bee swarms

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect bee swarms and manage the swarming behaviour of bees.

This unit applies to beekeepers who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to catch a swarm of honey bees	1.1 Obtain equipment required to collect a swarm of honey bees and confirm it is in good repair and serviceable for use 1.2 Check personal protective equipment (PPE) for serviceability and use and wear correctly 1.3 Identify work health and safety hazards associated with collecting

Element	Performance criteria
	bee swarms and take action to deal with them effectively 1.4 Observe site quarantine or other biosecurity protocols 1.5 Identify risks associated with collecting a swarm of honey bees and take actions to minimise likelihood and consequences of risks
2. Collect a swarm of honey bees	2.1 Place dry drawn frames in hive box for collected swarm to ensure it remains in new hive box 2.2 Catch swarm by shaking it into an empty box 2.3 Move boxed swarm to new location after confirming that whole swarm has been collected 2.4 Keep swarm separate from other hives to monitor hive health and disease-free status 2.5 Re-queen a swarm
3. Manage swarming behaviour in a honey bee colony	3.1 Monitor honey bee colony for signs that swarming may occur 3.2 Consider a range of control options if swarming appears likely to occur, and select and implement the best option 3.3 Monitor colony to ensure that swarming behaviour has been controlled and if necessary, implement further control options

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK301A Manage honey bee swarms.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK301 Manage honey bee swarms

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- correctly wear appropriate personal protective equipment (PPE)
- communicate with members of the public and/or owners or managers of the property/area from which a swarm is being collected
- collect a swarm of honey bees
- implement a range of control options to manage swarming behaviour in honey bees
- interpret bee behaviour and handling bees
- use specialist equipment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of managing swarms
- why and when honey bees swarm
- why swarms are collected
- signs that a colony is about to swarm
- management techniques that can be used to manage a colony that is showing signs it is about to swarm
- biosecurity protocols
- diseases that occur in honey bees
- signs of brood disease and wax moth infestation in a swarm once it has been placed in a hive
- when and how to requeen a swarm that has been collected.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK302 Manipulate honey bee brood

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manipulate a honey bee brood to achieve desired outcomes.

This unit applies to beekeepers who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to manipulate brood combs	1.1 Clarify reason for manipulating brood and plan appropriate sequence of actions 1.2 Select tools and equipment required to manipulate brood and check prior to use 1.3 Identify work health and safety hazards associated with

Element	Performance criteria
	manipulating brood and take actions to minimise risk to self and others 1.4 Select and use suitable personal protective equipment (PPE) and check prior to use 1.5 Observe site quarantine or other biosecurity protocols in force 1.6 Identify risks to colony, including to brood and queen bee, and take actions to minimise likelihood and consequences of risks
2. Manipulate brood	2.1 Open hive and remove combs in planned sequence and place in suitable position 2.2 Replace frames in same or new sequence and position, or remove to another hive according to purposes for which brood is being manipulated 2.3 Monitor hive and colony after the manipulation process and take appropriate action if needed to minimise any disturbance to brood 2.4 Dispose of waste materials appropriately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK302A Manipulate honey bee brood.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK302 Manipulate honey bee brood

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- correctly wear appropriate personal protective equipment (PPE)
- determine when and how a honey bee brood should be manipulated to achieve a desired outcome
- identify hazards and implement safe work procedures handling bees
- handle materials and equipment
- use a bee smoker
- open hives and remove and reposition frames safely with minimal damage or unintended disturbance to brood
- clean up on completion of work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of brood manipulation
- biosecurity involved when moving bees
- bee behaviour
- bee handling techniques
- different types of manipulation that may be used to achieve desired result
- fire risk level
- purposes for which brood may be manipulate.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK303 Re-queen a honey bee colony

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to re-queen a honey bee colony with a replacement queen.

This unit applies to beekeepers who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify requirement to re-queen a colony	1.1 Assess the vigour of the current queen 1.2 Monitor colony for signs that indicate queen replacement is necessary
2. Prepare to re-queen a colony	2.1 Check personal protective equipment (PPE) for serviceability and use and wear correctly

Element	Performance criteria
	2.2 Identify work health and safety hazards associated with task and take action to deal with them effectively 2.3 Obtain replacement queen that meet enterprise criteria from a commercial supplier or from own breeding stock 2.4 Store replacement queen and any escort worker bees in appropriate conditions and monitor until re-queening is undertaken 2.5 Monitor hive to ensure re-queening occurs under optimum conditions 2.6 Confirm replacement queen as being healthy and free from pests and diseases
3. Introduce replacement queen bee	3.1 Find old queen bee in the hive and remove 3.2 If replacing queen bee with a nucleus colony, place nucleus colony on top of colony to be re-queened with the two colonies separated by a single layer of paper 3.3 If replacing the queen bee with a caged queen bee, remove cork from candy end (if in place) and introduce into the hive using a suitable, proven introduction method 3.4 Leave hive undisturbed for a period of ten days
4. Monitor progress of a replacement queen bee	4.1 After ten days, monitor the hive for acceptance of replacement queen bee by colony 4.2 Monitor replacement queen bee for evidence of egg laying and adequate levels of hatching

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK303A Re-queen a honey bee colony.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK303 Re-queen a honey bee colony

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- wear suitable personal protective equipment (PPE) correctly
- identify hazards and implement safe work practices
- identify the need to re-queen
- assess suitability of conditions for re-queening
- identify disease status of parent colonies
- install replacement queen bee
- monitor activity of new queen bee and the threat of competition.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of re-queening
- conditions required for re-queening
- factors that may affect brood production
- factors to consider when identifying and removing old queen and introducing new queen
- queen bee behaviour and brood pattern
- selection criteria for new queen bee
- storage requirements of queen bees before being introduced into the colony.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK304 Remove a honey crop from a hive

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to remove a honey crop from a hive by removing bees and combs from the hive and removing filled combs from the hive to other boxes for transport to the extracting facility.

This unit applies to beekeepers who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to remove honey	1.1 Obtain tools and equipment and confirm they are in good repair and serviceable for use 1.2 Check personal protective equipment (PPE) for serviceability and wear and use correctly

Element	Performance criteria
	1.3 Identify work health and safety hazards, assess risks and implement control measures 1.4 Identify and meet food safety requirements 1.5 Observe site quarantine or other biosecurity protocols 1.6 Determine ripeness of honey to ensure it is mature enough to be harvested 1.7 Observe any withholding periods for honey bee medications and treatments 1.8 Take into account potential contaminants, impact on the colony and quality and type of honey to be obtained when planning the time and location of the honey removal 1.9 Identify factors affecting the quantity of honey to be removed from hive and take these into consideration when removing honey
2. Remove honey from the hive	2.1 Consider a range of suitable methods for removing bees from honey-filled combs and select and implement the best option or combination of options 2.2 Consider a range of suitable methods for removing the honey crop in the frames from the hive and implement the best option or combination of options 2.3 Monitor the quality of the honey during removal process and, if required, modify removal methods to ensure that desired quality standards are achieved and maintained 2.4 Transport honey-filled frames to extracting facility

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK304A Remove a honey crop from a hive.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK304 Remove a honey crop from a hive

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- wear appropriate personal protective equipment (PPE) correctly
- work safely with and around bees
- determine the ripeness of honey and filling of comb cells
- handle frames and combs filled with honey so that they are not contaminated with dust, dirt or water
- select and use the most suitable methods for removing bees and honey-filled frames from hive
- use safe manual and/or mechanical handling techniques.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of honey removal
- food safety requirements
- methods to remove bees from hives
- the indicators of ripe honey and adequately filled cells
- the withholding periods of medications and/or treatments.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK305 Extract honey

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate honey extraction equipment safely to extract honey fit for human consumption. The work may be carried out in a mobile processing facility or a purpose built fixed facility.

This unit applies to beekeepers who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to extract honey	1.1 Select, check and use suitable personal protective equipment (PPE) 1.2 Identify work health and safety hazards and take action to

Element	Performance criteria
	minimise risks to self and others 1.3 Check all equipment is clean, dry, sanitised and serviceable 1.4 Observe personal hygiene requirements including washed hands and wearing of clean clothing
2. Extract honey	2.1 Comply with Quality Assurance (QA) and food safety requirements throughout the process of extracting honey 2.2 Inspect frames visually for areas of brood and, if found, uncap frames by hand to avoid brood 2.3 Warm combs where required to assist the extraction process 2.4 Uncap cells using a hand knife or machine, avoiding damage to cells and frames 2.5 Place frames in the extraction unit and operate the unit
3. Handle extracted honey	3.1 Heat the extracted honey up to 30°C, if necessary, to assist in removing wax, air bubbles, pollen and bees 3.2 Check moisture content of honey and take action to maintain appropriate moisture as required 3.3 Take action to reduce risk of fermentation of honey
4. Store honey	4.1 Store cleaned honey in containers to meet health regulations and customer requirements 4.2 Take a reference sample of honey, label and store 4.3 Clean, dry and sanitise all equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK305A Extract honey.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK305 Extract honey

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- correctly wear appropriate personal protective equipment (PPE)
- Identify hazards and use equipment safely
- distinguish between honey cells and brood cells
- extract honey in compliance with Quality Assurance (QA) and food safety requirements
- sample honey to meet Quality Assurance and food safety requirements
- store extracted honey to reduce the risk of spoilage.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of honey extraction
- biosecurity protocols for honey extraction and movement
- equipment and its maintenance requirements
- food safety systems and requirements
- quality assurance requirements designed for the honey industry
- the effect of heat and extraction processes on honey.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK306 Manage pests and disease within a honey bee colony

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to inspect a honey bee colony for indicators of disease or evidence of pests, and take appropriate follow-up action.

This unit applies to beekeepers who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

All work is carried out to comply with notifiable disease legislation and relevant industry standards and protocols.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to check brood	1.1 Use suitable personal protective equipment (PPE)

Element	Performance criteria
	1.2 Use tools and equipment to open a hive 1.3 Identify work health and safety hazards associated with opening a hive and take actions to minimise risk to self and others
2. Assess health and condition of brood	2.1 Inspect hive for signs of diseased brood being ejected from hive at entrance or bottom board 2.2 Inspect brood for signs and evidence of pests and disease and, where pests or notifiable disease is observed, notify authorities and take action 2.3 Identify signs of disease or pests, collect samples for testing and gather evidence to support a diagnosis
3. Assess health and condition of adult bees	3.1 Observe flight paths around hive entrance for signs of poor or irregular flight patterns and for dead or dying bees at hive entrance 3.2 Observe adult bees and brood combs for signs of disease and, if notifiable disease is present, notify authorities and take action 3.3 Identify signs of disease or pest, collect samples for testing and gather evidence to support a diagnosis 3.4 Implement biosecurity measures 3.5 Record results of inspections and any remedial action taken and use as the basis of future beekeeping operations

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK306A Manage pests and disease within a honey bee colony.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK306 Manage pests and disease within a honey bee colony

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- identify key signs and symptoms of disease and pests that may affect brood or adult honey bees
- work safely around bees
- report signs of notifiable diseases
- take samples
- take appropriate actions to eliminate or manage pests and diseases.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of disease management within a honey bee colony
- how pests and diseases are spread and level of risk to beekeeping
- the signs of endemic and exotic disease and pests of honey bees and treatments.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK401 Collect and store propolis

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect and store propolis. It applies to those involved in the specialist production of propolis in line with food safety and quality assurance requirements.

This unit applies to beekeepers who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to collect propolis	1.1 Select or acquire suitable colony 1.2 Clean and sanitise equipment to be used in collection of propolis 1.3 Select and check suitable personal protective equipment (PPE)

Element	Performance criteria
	before use 1.4 Identify work health and safety hazards and take action to minimise risks to self and others 1.5 Construct and install suitable propolis trap or create cracks for bees to place propolis 1.6 Stimulate propolis production by manipulation of environmental conditions
2. Collect and store propolis	2.1 Remove propolis from hive frames, lids, boxes or propolis trap 2.2 Comply with quality assurance and food safety requirements throughout collection and storage of propolis 2.3 Observe personal hygiene requirements including washing hands and wearing clean clothing 2.4 Select appropriate extraction method and extract propolis 2.5 Store extracted propolis in appropriate clean and dry conditions

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK401A Collect and store propolis.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK401 Collect and store propolis

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- correctly use appropriate personal protective clothing (PPE)
- apply quality assurance and food safety procedures
- handle bees and work safely around them
- judge the suitability of a colony for propolis collection
- remove propolis from hive frames, lids, boxes or propolis traps
- maintain a healthy hive and colony
- recognise propolis and distinguish it from other substances collected by bees
- recognise suitable flora for propolis production.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- characteristics of bees and their behaviour
- food safety requirements
- quality assurance requirements designed for the honey industry
- suitable conditions and constraints on collecting propolis.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK402 Perform queen bee artificial insemination

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect semen from drone honey bees and inseminate a queen bee.

This unit applies to beekeepers who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Determine breeding method	1.1 Review options for artificial breeding to determine the most suitable and affordable method in line with breeding objectives 1.2 Select an artificial breeding option in line with the organisation's breeding program and queen and drone management program and

Element	Performance criteria
	match to resources 1.3 Identify, source and arrange resource requirements 1.4 Prepare program schedules based on available resources 1.5 Confirm that suitable personal protective equipment for self and breeding support staff is available and in good condition
2. Implement breeding method	2.1 Obtain genetic material from reliable and legitimate sources 2.2 Receive, check and store genetic material to ensure maximum viability and program outcomes 2.3 Manage rearing times so that queen bees and drones are of appropriate age and condition when artificial insemination is scheduled to occur 2.4 Collect semen from drones, prepare queens and inseminate using hygienic techniques to minimise risk of contamination 2.5 After insemination, place queen in a colony of suitable strength and monitor.
3. Monitor and maintain program	3.1 Review adjustments in genetic material transfer practices to enhance success of future programs 3.2 Document data on genetic material transfer programs 3.3 Calculate and use success rates from breeding objectives to determine success of artificial insemination program 3.4 Identify and record modifications to queen and drone management program to assist continuous improvement processes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK402A Perform queen bee artificial insemination.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK402 Perform queen bee artificial insemination

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- schedule and obtain resources for insemination activities
- determine artificial insemination timing
- match queen and drone cycles
- prepare queen and drone honey bees for artificial insemination
- use appropriate artificial insemination techniques
- keep records in relation to an artificial insemination program
- maintain required hygiene standards
- manage queen bees after insemination
- identify that an inseminated queen bee is laying fertilised eggs.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of artificial insemination of queen bees
- anatomy and physiology of reproductive organs and reproductive process in queen and drone honey bees
- genetics and inheritance of bee characteristics
- artificial breeding methods and the benefits and limitations of methods used
- honey bee health and abnormalities
- identification systems for queen and drone honey bees and semen
- physical resource requirements and how to safely handle and transport bees
- artificial insemination policies and recording and reporting requirements
- preparation requirements for artificial insemination

- semen collection and homogenising processes
- organisational breeding programs.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK403 Produce and harvest royal jelly

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to produce and harvest royal jelly.

This unit applies to beekeepers who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to produce and harvest royal jelly	1.1 Select and use personal protective equipment (PPE) 1.2 Identify work health and safety hazards associated with working with bees and take appropriate action to minimise risks to self and others

Element	Performance criteria
	1.3 Assess hive for suitability for production of royal jelly 1.4 Prepare hive and put in artificial queen bee cells 1.5 Graft bee larvae 1.6 Stimulate production of royal jelly 1.7 Ensure production equipment is clean and sanitised
2. Collect and store royal jelly	2.1 Adhere to personal hygiene requirements, including washed hands and wearing clean clothing 2.2 Ensure collection and storage equipment is clean and sanitised 2.3 Remove larvae carefully from cell with a grafting tool so as not to contaminate jelly, and discard larvae 2.4 Remove royal jelly from each cell 2.5 Filter royal jelly through fine nylon net to remove traces of wax or larvae 2.6 Place harvested royal jelly into appropriate hygienic containers, avoiding excessive exposure to air, and refrigerate immediately
3. Finalise tasks	3.1 Check and clean equipment and return to store area 3.2 Keep and maintain records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK403A Produce and harvest royal jelly.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK403 Produce and harvest royal jelly

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare hives for royal jelly collection
- handle bees
- graft larvae and stimulating royal jelly production
- remove larvae
- collect and store royal jelly
- keep records of royal jelly production for food safety and quality assurance requirements.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- correct cleaning and sanitation methods
- food safety requirements
- quality assurance requirements designed for the honey industry
- the role of nurse bees in royal jelly production
- bee biology.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK404 Provide bee pollination services

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide bee pollination services. This unit applies to beekeepers who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area.

They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess pollination service requirement	1.1 confirm with client the pollination services to be provided 1.2 Determine number and types of colonies required for crop 1.3 Assess strength and condition of bee colonies for their suitability for use as crop pollinators

Element	Performance criteria
	1.4 Assess risk of pollination problems with client and agree and establish process to monitor risk 1.5 Provide technical information to client
2. Price and formalise agreement for pollination services	2.1 Identify and calculate costs in providing pollination services 2.2 Confirm with client the price for pollination services 2.3 Make and document formal agreement with client
3. Monitor pollination performance of bee colonies	3.1 Liaise with client on spraying programmes 3.2 Monitor crop within appropriate timeframe for evidence of bee foraging and pollination efficiency 3.3 Take remedial action where required 3.4 Demonstrate hive strength and condition to client 3.5 Maintain swarm control 3.6 Carry out bee husbandry practices
4. Comply with industry and legislative requirement	4.1 Obtain appropriate health certificates and permits where bees are to be moved across state borders 4.2 Follow appropriate pollination code of practice 4.3 Comply with all Apiary Acts and other relevant Acts and regulations and local government regulations affecting beekeeping

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK404A Provide bee pollination services.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK404 Provide bee pollination services

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess hive condition and suitability for pollination
- calculate strength and numbers of bee colonies required to pollinate crop
- identify suitable locations within crop or site for hive placement
- manage the pollination process by honey bee colonies
- monitor chemical use near hives
- monitor climate and weather
- monitor hive activity on target crop
- negotiate a price for pollination with a customer.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- chemicals used on crops to be pollinated and available alternatives
- environmental and climatic factors affecting bee foraging behaviour and pollination
- essential elements of a valid contract
- how to manage the health and performance of bee colonies
- pollination requirements of major crops in locality of operation, including nearby crops and plants that may be more attractive to foraging bees
- the nutrition and water requirements of bees
- where to locate colonies to maximise pollination
- how to negotiate a price and formalise an agreement for pollination services.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK405 Select and establish an apiary site

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit describes the skills and knowledge required to select, establish and evaluate an apiary site.

This unit applies to beekeepers who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan to select and establish an apiary site	1.1 Establish criteria for selecting a site 1.2 Identify suitable locality in which to search for site 1.3 Gather and analyse information about potential sites in selected locality

Element	Performance criteria
	1.4 Identify criteria to assess the suitability of the site 1.5 Select suitable site
2. Select the apiary site	2.1 Determine capacity of available flora to support desired number of hives at site 2.2 Prepare a plan to establish an apiary at the selected site 2.3 Select precise areas to establish an apiary within the site, taking into account relevant planning and land use regulations, proximity to flora, water, general public, animals, gates, stockyards and movement of the sun, accessibility of the site, nearby land use, and protection from extreme environmental conditions 2.4 Obtain permission (where necessary) to locate beehives at sites from land/site owner, manager, landlord or body corporate.
3. Establish the apiary at the selected site	3.1 Select suitable personal protective equipment (PPE) to establish an apiary site and check before use 3.2 Select tools and equipment required and check before use 3.3 Identify work health and safety hazards and take actions to minimise risk to self and others 3.4 Load and unload beehives at site 3.5 Observe and record the access of bees to floral sources and water, of colony strength and honey production 3.6 Monitor the suitability of the site and reposition hives as required or seek a new site 3.7 Record results of inspections and any remedial action taken and use as basis for future beekeeping operations

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK405A Select and establish an apiary site.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK405 Select and establish an apiary site

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine an apiary location to meet the nutritional requirements of a colony
- determine site selection criteria
- identify and assess hazards
- establish an apiary at a selected site
- identify and assess flora for their pollen and nectar flow productivity
- load and unload beehives.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- nutritional and other requirements of a bee colony
- sources of information about potential sites
- criteria for selecting a site including relevant planning and land use regulations
- personal protective equipment (PPE) and tools and equipment for handling bees and beehives.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK406 Trap and store pollen

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to construct and install a suitable pollen trapping mechanism and store pollen appropriately according to its intended use.

This unit applies to beekeepers who analyse information and exercise judgement to complete a range of advanced skilled activities and who demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to trap and store pollen	1.1 Select suitable floral resources 1.2 Assess colony for suitability for pollen collection 1.3 Select and use personal protective equipment (PPE)

Element	Performance criteria
	1.4 Identify work health and safety hazards and take appropriate action to minimise risks to self and others 1.5 Ensure equipment to be used in the process of collecting pollen is clean and sanitised according to food safety requirements
2. Collect pollen	2.1 Construct suitable pollen trapping mechanism and install in hive 2.2 Adhere to personal hygiene requirements including washed hands and wearing clean clothing 2.3 Collect pollen at appropriate frequency 2.4 Assess risk of theft by ants and take steps to reduce likelihood of this occurring 2.5 Assess risk of contamination by moth larvae and take steps to reduce likelihood of this occurring 2.6 Assess risk of colony decline and stop pollen collection if necessary 2.7 Store pollen temporarily in a suitable container to be transported to processing facilities
3. Process pollen	3.1 Clean pollen to remove all foreign material 3.2 Dry pollen until moisture content is appropriate to prevent fermentation and deterioration and store appropriately 3.3 If not dried, freeze immediately to prevent fermentation and deterioration

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK406A Trap and store pollen.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK406 Trap and store pollen

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- build or purchase a suitable pollen trap
- assess suitability of colonies for pollen collection
- correctly wear appropriate personal protective equipment (PPE)
- collect and process pollen
- manage the hive
- maintain records
- handle bees
- clean and sanitise equipment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of trapping and storing pollen
- bee colony pollen requirements
- bee handling techniques
- floral sources of pollen production
- quality assurance requirements designed for the honey industry
- requirements for commercial processing.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBEK407 Rear queen bees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to rear high quality queen bees and queen cells through the application of good management practices.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish conditions and obtain requirements for queen bee rearing	1.1 Select breeding stock from productive healthy stock or purchase breeder queen bee 1.2 Obtain all tools and equipment needed to rear queen bees 1.3 Select and use personal protective equipment 1.4 Identify work health and safety hazards and take action to minimise them 1.5 Observe site quarantine or other biosecurity protocols in force 1.6 Confirm all hives and colonies used for queen bee and drone production are in a clean and healthy condition

Element	Performance criteria
	1.7 Select day-old larvae from the breeder queen bee for grafting and transfer from worker cells into queen cell cups 1.8 Confirm an adequate number of nurse bees are present in cell raising colonies 1.9 Use a suitable method for cell production
2. Establish and monitor the queen mating process	2.1 Transfer ripe queen cells into the nucleus 10 to 11 days after grafting 2.2 Provide an adequate number of mature, well-nourished and genetically suitable drones during mating period 2.3 Record details of grafting and subsequent placement of cells into nucleus colonies 2.4 Record the age of the queen removed from mating colony

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBEK407A Rear queen bees.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK407 Rear queen bees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- select breeding stock or purchase breeder queen bee according to established breeding program criteria
- graft larvae of a suitable age
- assess and maintain nutrition and health of larvae and drones
- manage the hive
- handle bees
- appropriately monitor the queen mating process
- recognise diseases, pests and disorders and take appropriate action.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of rearing queen bees
- signs of brood and adult bee ill health sufficient to recognise diseases, pests and disorders and take appropriate action
- storage requirements of queen bees
- techniques and timing for queen cell production
- optimum conditions are for re-queening
- bee biology.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBER301 Work effectively in an emergency disease or plant pest response

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to work effectively within own area of responsibility while responding to an emergency disease or plant pest incursion.

The unit applies to personnel who have been appointed or engaged to undertake a role within an emergency disease or plant pest incursion response.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They provide and communicate solutions to a range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Emergency Response (BER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify information required	1.1 Access information about emergency disease or plant pest and appropriate response to apply during an emergency response 1.2 Use information to address specific work needs and identify further information requirements 1.3 Identify and access information and resources required from stakeholders
2. Carry out work	2.1 Communicate with stakeholders according to organisational procedures 2.2 Carry out work activities to conform to relevant legislation, regulations, procedures and codes of practice appropriate to work area and level of responsibility 2.3 Identify hazards and risks relevant to specific work being undertaken and respond as required
3. Manage own work	3.1 Interpret work instructions and seek clarification if inconsistencies are noted 3.2 Assess workload and prioritise competing demands to achieve personal, team and organisational goals and objectives 3.3 Communicate the need for physical and human resources clearly to appropriate person 3.4 Perform own role, responsibilities and duties in a positive manner to promote cooperation within the workplace 3.5 Respect the importance of own and others' roles in achieving organisational goals 3.6 Recognise personal symptoms of stress and its potential to impact on performance and take action to minimise negative effects 3.7 Report undue personal stress to appropriate person
4. Comply with biosecurity requirements	4.1 Identify biosecurity procedures relevant to own work area 4.2 Maintain personal protective equipment and fomites according to biosecurity procedures 4.3 Report biosecurity breaches immediately to appropriate person 4.4 Complete biosecurity records according to work area requirements
5. Adapt to change as required	5.1 Identify and assess any need for change in own work practices to reflect critical emergency issues or emerging trends 5.2 Discuss and seek agreement with senior staff if changes are required 5.3 Change own work practices where required and according to agreed arrangements 5.4 Apply a flexible approach that takes account of changing priorities and circumstances when implementing instructions for

Element	Performance criteria
	changes to work practices 5.5 Monitor change to determine the effectiveness of revised work practices and advise senior staff members of findings

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC BIO301A Work effectively in an emergency disease or plant pest response.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBER301 Work effectively in an emergency disease or plant pest response

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- access and use information to determine appropriate response, work needs, and information and resources to be accessed from stakeholders
- carry out work activities to conform with national plan
- communicate with stakeholders
- identify hazards and risks
- manage own work load and priorities
- interpret work instructions and seek clarification as needed
- recognise and respond to personal stress
- promote cooperation and respect within work team
- communicate the need for physical and human resources
- comply with biosecurity requirements for personal protective equipment and fomites, reporting biosecurity breaches and completing records
- adapt to and monitor change
- complete biosecurity records.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- AUSVETPLAN or PLANTPLAN, relevant standards, guidelines and protocols, and Nationally Agreed Standard Operating Procedures (NASOP) relating to an emergency disease or plant pest incursion response
- organisational procedures for communication in an emergency response
- common physical and human resources needed in an emergency response
- common work health and safety, and biosecurity hazards in an emergency response

- personal protective equipment, and fomites relevant to emergency response
- signs of personal stress and potential impact on response
- techniques for prioritising work activities and time management
- techniques for managing own responses to change, and to personal stress
- communication principles for working effectively in teams, and reporting information
- records required to be kept during an emergency response.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBER303 Carry out emergency disease or plant pest control procedures at infected premises

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out emergency disease or plant pest control activities at a site affected by an emergency disease outbreak or plant pest incursion.

The unit applies to personnel who undertake a role within an emergency disease or plant pest incursion response.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They provide and communicate solutions to a range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Emergency Response (BER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare for emergency disease or plant pest control activities	1.1 Clarify work instructions received from infected premises (IP) site supervisor in preparation for carrying out control procedures 1.2 Select and prepare appropriate equipment and materials to undertake control activities in line with IP site supervisor's work instructions and associated safety requirements 1.3 Select and prepare personal protective equipment (PPE) 1.4 Identify animal welfare considerations if dealing with an emergency disease
2. Carry out emergency disease or plant pest control activities	2.1 Implement control activities in line with work instructions, work health and safety requirements and standards and protocols 2.2 Maintain a log of activities carried out on the IP in accordance with instructions from IP site supervisor 2.3 Use PPE as instructed by IP site supervisor 2.4 Give and receive work instructions within own area of responsibility
3. Check and adjust emergency disease or plant pest control activities	3.1 Check control activities within own area of responsibility regularly to ensure compliance with work instructions, work health and safety requirements and standards and protocols 3.2 Provide reports to IP site supervisor as required 3.3 Report any variations from work instructions and standards and protocols, or failure to achieve objectives to IP site supervisor and undertake remedial action within own scope of authority 3.4 Communicate any recommendations for adjusting work instructions to IP site supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC BIO303A Carry out emergency disease or plant pest control procedures at infected premises.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBER303 Carry out emergency disease or plant pest control procedures at infected premises

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for control activities
- follow infected premises (IP) site supervisor instructions
- identify animal welfare concerns
- select, prepare and use personal protective equipment (PPE)
- apply biosecurity principles and work health and safety practices in implementing, monitoring and reporting on variations to control activities
- implement control activities
- monitor, review and report on control activities within area of own responsibility, for compliance and effectiveness
- undertake remedial action within own scope of authority
- provide reports to IP site supervisor on variations to activities, failure to meet objectives and recommendations for adjustments to work instructions
- communicate effectively with IP site supervisor and when giving and receiving work instructions to others
- maintain log of activities as required.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- common control activities associated with emergency disease and plant pest control procedures at infected premises (IP)
- objectives and work instructions commonly associated with IP control responses
- own work role and responsibilities within an IP control response

- animal welfare guidelines relevant to the species, disease and IP environment if animals are under control procedures
- PPE gear commonly used in IP control response
- biosecurity principles commonly associated with an IP control response
- safe work practices applicable to work role and responsibilities in an IP environment
- reporting templates and requirements for logging control activities
- communication principles used in giving, receiving and clarifying instructions, and reporting on control activities.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBER304 Carry out movement and security procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement appropriate procedures to restrict the movement of vehicles, personnel, products, livestock and plant material in relation to managing an emergency disease or plant pest incursion.

The unit applies to personnel who have been appointed or engaged to undertake a role within an emergency disease or plant pest incursion response.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They provide and communicate solutions to a range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Emergency Response (BER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to carry out	1.1 Identify specific movement and security procedures to be carried

Element	Performance criteria
movement and security procedures	<p>out, including times and locations of operations from work instructions</p> <p>1.2 Obtain personal protective equipment required for particular procedures to be carried out and check for serviceability and use</p> <p>1.3 Obtain documentation required to carry out specific procedures</p> <p>1.4 Obtain resources required to carry out specific procedures and check for serviceability and use</p>
2. Carry out movement and security procedures	<p>2.1 Establish a traffic check point according to work instructions</p> <p>2.2 Monitor movement of vehicles, personnel, products, livestock or plant material through declared areas in line with requirements</p> <p>2.3 Issue and check permits according to standards and protocols</p> <p>2.4 Take action in accordance with standards and protocols where vehicles are determined to be carrying personnel, products, livestock or plant material without a valid permit</p> <p>2.5 Maintain close liaison with external security providers as required</p> <p>2.6 Use personal protective equipment where required</p> <p>2.7 Decontaminate resources appropriately where required</p>
3. Check and adjust movement and security procedures	<p>3.1 Check application of movement and security procedures regularly within own area of responsibility to ensure consistency, currency and ongoing effectiveness</p> <p>3.2 Report any variations in consistency, currency and ongoing effectiveness or failure to achieve objectives to appropriate authorities and undertake remedial action within own scope of authority</p> <p>3.3 Communicate any recommendations for adjusting movement and security procedures to supervisor and appropriate authorities</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC BIO304A Carry out movement and security procedures.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBER304 Carry out movement and security procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must undertake movement and security procedures including establishing a traffic check point and monitoring the movement of vehicles and issuing permits.

The candidate must demonstrate that they can:

- determine logistics and required documentation applicable to specific movement and security operations
- obtain and check any resources and personal protective equipment (PPE)
- establish and operate traffic checkpoint
- issue and check permits
- respond to vehicles without valid permit for load being transported as appropriate to standards and protocols
- liaise with external security providers
- use PPE and decontaminate resources as required
- monitor, review and report on application of movement and security procedures within area of own responsibility
- undertake remedial action within own scope of authority
- provide reports on variations to appropriate authorities in consistency, currency and ongoing effectiveness or failure to achieve objectives
- communicate recommendations on adjusting movement and security procedures to supervisor and appropriate authorities.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- movement and security procedures commonly associated with movement and security controls during a disease or plant pest incursion
- AUSVETPLAN or PLANTPLAN, and other relevant standards and protocols to determine:

- permits and documentation associated with implementing movement and security procedures
- action required for any vehicle without a valid permit
- biosecurity principles associated with movement and security procedures, use of PPE gear, and need for decontamination
- safe work practices
- objectives and work instructions associated with movement and security procedures
- own work role, responsibilities and scope of authority in implementing movement and security procedures
- decontamination procedures for PPE and resources
- reporting templates
- communication principles used in operating a traffic control point, issuing permits and documentation, and reporting to supervisor and appropriate authorities.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBER401 Plan and supervise control activities on infected premises

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise others in the range of activities required on infected premises (IP).

The unit applies to personnel who have been appointed or engaged to undertake a role within an emergency disease or plant pest incursion response. Work is generally carried out under general instructions from the IP operations manager.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Emergency Response (BER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
<p>1. Plan emergency disease or plant pest control activities on an IP</p>	<p>1.1 Plan emergency disease or plant pest control activities under direction from IP operations manager and in consultation with property owner or manager and taking into consideration environmental values that need to be protected</p> <p>1.2 Confirm all IP procedures with IP operations manager and communicate to property owner or manager</p> <p>1.3 Develop a schedule for implementation of emergency disease or plant pest control activities and request resources required for planned activities</p> <p>1.4 Establish reporting processes</p> <p>1.5 Establish staff rosters to support activities in a cost-effective manner and with minimal stress on personnel</p>
<p>2. Supervise emergency disease or plant pest control activities</p>	<p>2.1 Assign personnel to team leader and worker positions required by IP operations functions to be performed and give directions for tasks to be performed</p> <p>2.2 Conduct emergency disease or plant pest control activities with ongoing consultation with IP operations manager and property owner or manager</p> <p>2.3 Supervise emergency disease or plant pest control activities to ensure that they are cost-effective, make effective use of resources and avoid unnecessary property damage and livestock or crop destruction</p> <p>2.4 Monitor valuations of materials requiring destruction, use of plant, equipment and materials and all IP service provision to ensure they adhere to relevant standards, national plans, protocols and contract requirements</p> <p>2.5 Monitor supplies of materials and resources to ensure that they are adequate to meet needs of control activities</p> <p>2.6 Maintain an incident log that includes details of all activities undertaken as well as contractors' hours and performance</p> <p>2.7 Supervise and motivate personnel to carry out specific emergency disease or plant pest control activities to the standard required</p>
<p>3. Check effectiveness of emergency disease or plant pest control activities</p>	<p>3.1 Monitor effectiveness and progress of control activities and compare with planned objectives</p> <p>3.2 Carry out inspections of teams on site with sufficient regularity to ensure that standards are applied in line with required standards and protocols</p> <p>3.3 Provide progress reports to IP operations manager according to agreed reporting schedule and format</p> <p>3.4 Keep records as required by standards and protocols</p>
<p>4.1 Revise site-specific emergency disease or</p>	<p>4.1 Revise control activities as required to address relevant protocols, maintain cost-effectiveness including appropriate resource</p>

Element	Performance criteria
plant pest control activities	allocation and to contain wider impacts 4.2 Communicate revisions to activities promptly To Local Control Centre (LCC)

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC BIO401A Supervise activities on infected premises.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBER401 Plan and supervise control activities on infected premises

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- consult with infected premises (IP) manager and property owner or manager on planning and implementation matters
- plan control activities for emergency disease or plant pest control response:
- schedule implementation of control activities
- identify IP procedures required, and confirm with IP manager
- request resources required for planned activities
- establish reporting processes
- establish staff rosters
- communicate with property owner or manager on IP procedures
- supervise and motivate personnel to carry out control activities to standards and protocols required, and confirm with on-site inspections of teams
- monitor supplies of materials and resources and maintain to meet needs of control activities
- monitor all IP service provision for adherence to standards, protocols and contractual arrangements
- maintain incident log, and records of control activities
- monitor control activities for value for money, and minimal impact on property, effectiveness and progress against planned objectives
- report on progress of control activities against plan to IP operations manager
- revise control activities as required to address relevant protocols whilst maintaining cost effectiveness and wider impacts
- communicate revisions to control activities to Local Control Centre (LCC).

Knowledge Evidence

The candidate must demonstrate knowledge of:

- AUSVETPLAN or PLANTPLAN, relevant standards, guidelines and protocols, and Nationally Agreed Standard Operating Procedures (NASOP) that guide development and implementation of IP control plan, contractual arrangements and control procedures
- planning processes
- communication principles used for consultation, providing information, reporting, and in interacting with personnel
- supervisory and monitoring practices used with personnel
- techniques for motivating personnel
- contractual arrangements
- reporting requirements
- processes for planning, scheduling, monitoring progress and costs.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBER402 Carry out field surveillance for a specific emergency disease or plant pest

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out field surveillance for a specific emergency disease or plant pest.

The unit applies to personnel who have been appointed or engaged as part of a field surveillance team to undertake a role within an emergency disease or plant pest incursion response. Field surveillance teams work under instructions from the control centre.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Emergency Response (BER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Look for signs of a specific emergency disease or plant pest	1.1 Receive and confirm work instructions from surveillance coordinator or other appropriate authority 1.2 Identify signs of an emergency disease or plant pest, collect appropriate samples for testing, and gather evidence to support a diagnosis according to relevant standards and protocols 1.3 Access appropriate available expertise to assist in diagnosis 1.4 Collect, handle, package and dispatch diagnostic samples according to relevant standards and protocols
2. Respond to an emergency disease or plant pest	2.1 Alert surveillance coordinator when signs of an emergency disease or plant pest are found 2.2 Take appropriate measures to immediately contain emergency disease or plant pest according to instructions from control centre and relevant guidelines 2.3 Collect information relevant to management of emergency disease or plant pest outbreak and report to surveillance coordinator 2.4 Give directions and warnings to property owners or persons in charge about suspected emergency disease or plant pest 2.5 Conduct personal decontamination and, where appropriate, equipment and vehicle decontamination according to relevant standards and protocols for emergency disease or plant pest

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC BIO402A Carry out field surveillance for a specific emergency disease or plant pest.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBER402 Carry out field surveillance for a specific emergency disease or plant pest

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- undertake field surveillance for specific disease or plant pest as directed
- report findings of specific disease or plant pest along with samples and evidence to support find
- follow relevant standards and protocols to identify and report findings
- use appropriate available expertise to assist in identification and diagnosis
- follow relevant standards and protocols in collection, handling, packaging and despatch of samples
- contain emergency disease of plant pest as directed by control centre and relevant guidelines
- collect and report information relevant to management of outbreak to surveillance coordinator
- give directions and warnings to property owners or person in charge re the suspected presence of emergency disease or plant pest
- decontaminate self and where appropriate equipment and vehicles.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- standards, guidelines and protocols for the emergency disease or plant pest
- signs of specific disease or plant pest which is the subject to surveillance
- emergency disease or plant pest surveillance procedures for:
 - collecting and handling samples and supporting evidence of diagnosis
 - reporting findings and information that may help in control response
 - containment of outbreak

- personal and general decontamination
- process for locating expertise
- communication principles for providing direction and warnings to property owners and managers, liaising with disease or plant pest experts, and reporting to surveillance coordinator.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBER501 Manage active operational emergency disease or plant pest sites

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage active operational emergency disease or plant pest sites.

The unit applies to personnel who have been appointed or engaged to undertake a role within an emergency disease or plant pest incursion response.

This unit applies to individuals who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They analyse information and demonstrate deep knowledge in a specific technical area. They analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Emergency Response (BER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Plan control procedures across the declared area	1.1 Conduct planning and consultation with stakeholders and field personnel 1.2 Conduct planning in line with relevant standards, protocols and guidelines, and according to instructions from operations director 1.3 Identify, obtain, schedule, prioritise and deploy required resources 1.4 Identify work health and safety requirements and hazards associated with implementing control procedures and ensure appropriate action is taken to minimise risks to self and others 1.5 Identify criteria for implementing control procedures which satisfy relevant standards and protocols with minimal livestock or crop destruction and property damage 1.6 Prepare contingency plans for effective control of emergency disease or plant pest
2. Manage the implementation of control procedures	2.1 Coordinate control procedures to achieve effective emergency disease or plant pest control outcomes 2.2 Maintain ongoing consultation and communication links with all stakeholders, field staff, property owners or managers and others in control centre 2.3 Implement control procedures and services supplied under contract 2.4 Prepare and submit written and verbal reports as required
3. Monitor and review the effectiveness of control procedures	3.1 Monitor personnel to ensure that they are achieving specified objectives 3.2 Monitor supply of resources for appropriateness and availability 3.3 Monitor implementation of control procedures to ensure cost-effective compliance with relevant standards and protocols 3.4 Review priorities for emergency disease or plant pest control operations, and confirm or revise as appropriate
4. Implement review findings	4.1 Revise control activities as required 4.2 Advise relevant stakeholders and personnel of revisions to control activities promptly for implementation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC BIO501A Manage active operational emergency disease or plant pest sites.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBER501 Manage active operational emergency disease or plant pest sites

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply standards, guidelines, protocols and legislation in:
 - planning control procedures
 - resourcing the control plan
 - addressing work health and safety requirements
 - determining criteria for implementing control procedures
 - contracting services
 - monitoring implementation of control procedures for cost effectiveness
 - monitoring, reviewing control operations and revising priorities as part of managing active emergency disease or plant pest sites
- plan and resource control procedures, and contingency plans
- engage with stakeholders and field personnel in planning process
- engage with stakeholders, field staff, property owners/managers and others in control centre throughout the control period
- manage and monitor implementation of control procedures
- monitor personnel against specified objectives
- monitor supply of resources
- review priorities and revise as appropriate after consultation
- review control activities as required and communicate to stakeholders and personnel.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- AUSVETPLAN or PLANTPLAN, and relevant standards, guidelines and protocols, and Nationally Agreed Standard Operating Procedures (NASOP)
- incident control management procedures
- the requirements of relevant commonwealth, state and territory legislation
- relevant public sector policies, practices and constraints in relation to emergency disease or plant pest management
- techniques for monitoring and reviewing control procedures, and resource expenditure
- advanced communication principles to consult and communicate with a range of stakeholders and the control centre
- project management principles.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBER502 Manage the implementation of an emergency disease or plant pest control program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage and implement an emergency disease or plant pest control program.

The unit applies to personnel who have been appointed or engaged to undertake a role within an emergency disease or plant pest incursion response.

This unit applies to individuals who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They analyse information and demonstrate deep knowledge in a specific technical area. They analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Emergency Response (BER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Initiate emergency disease or plant pest control program	1.1 Identify, source or develop control procedures needed to manage an infection or infestation according to standards, protocols and situational variables 1.2 Develop operational plans for own area of responsibility 1.3 Make contributions as required to other plans and strategies 1.4 Source resources required to control or eradicate emergency disease or plant pest
2. Direct implementation of emergency disease or plant pest control procedures	2.1 Manage implementation of emergency disease or plant pest control plan and procedures according to operational plan, other specified guidelines and situational variables 2.2 Disseminate reports on progress of emergency disease or plant pest control as required 2.3 Implement relevant management systems, and confirm as functioning and available as required
3. Monitor emergency disease or plant pest control procedures	3.1 Monitor emergency disease or plant pest status of properties in line with relevant guidelines and operational or control plan 3.2 Monitor appropriateness and effectiveness of emergency disease or plant pest control procedures 3.3 Monitor resource expenditure and availability to ensure adequacy for job 3.4 Monitor effectiveness of emergency disease or plant pest control information management system
4. Review emergency disease or plant pest control program	4.1 Review and revise emergency disease or plant pest control operational plans and procedures 4.2 Revise emergency disease or plant pest control information management procedures as appropriate to ensure a complete set of records 4.3 Reallocate or acquire resources where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC BIO502A Manage the implementation of an emergency disease or plant pest control program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBER502 Manage the implementation of an emergency disease or plant pest control program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply standards, guidelines and protocols in:
 - setting up and implementing control procedures
 - monitoring the status of properties and effectiveness of operational or control plan as part of an emergency disease or plant pest control response
- contribute to other plans and strategies, and develop operational plan within own area of responsibility
- source resources for control program
- direct implementation of the control plan and procedures utilising reporting and information management system
- monitor appropriateness and effectiveness of emergency disease or plant pest control procedures and review against and relevant guidelines, and operational or control plan
- monitor effectiveness of emergency disease or plant pest and information management system and revise procedures as necessary to ensure completeness of records
- monitor resource expenditure and availability against requirements of the operational or control plan and reallocate resources as required.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- AUSVETPLAN or PLANTPLAN, and relevant standards, guidelines and protocols, and Nationally Agreed Standard Operating Procedures (NASOP)
- incident control management procedures
- the requirements of relevant commonwealth, state and territory legislation

- relevant public sector policies, practices and constraints in relation to emergency disease or plant pest management
- information management systems and procedures for use and reporting
- techniques for monitoring and reviewing operational or control plans, and resource expenditure and allocation
- communication principles to liaise with other agencies, and direct implementation of the operation or control plan
- project management principles.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBER601 Plan and oversee an emergency disease or plant pest control program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and oversee an emergency disease or plant pest control program according to the relevant standards and protocols provided in a national response plan.

The unit applies to personnel who have been appointed or engaged to undertake a role within an emergency disease or plant pest incursion response.

This unit applies to individuals who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They analyse, design and communicate solutions to a range of complex problems. They work in contexts that are subject to change and adapt a range of fundamental principles accordingly.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Emergency Response (BER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Plan emergency disease or plant pest control program	1.1 Identify effective strategies to support emergency disease or plant pest control 1.2 Ensure all components of emergency disease or plant pest control program comply with relevant standards and protocols, a jurisdiction's nationally approved response plan, relevant state, territory and commonwealth legislation and emergency management principles 1.3 Seek and use expert advice to identify the source of emergency disease or plant pest and gauge its likely spread 1.4 Identify declared areas of presence of emergency disease or plant pest in line with expert advice and available evidence 1.5 Develop plans to effectively and efficiently control emergency disease or plant pest 1.6 Submit plans to appropriate authorities for approval 1.7 Identify likely developments and consequences of emergency disease or plant pest outbreak and advise appropriate personnel according to established lines of command and control
2. Oversee emergency disease or plant pest control program	2.1 Implement and monitor emergency disease or plant pest control plans 2.2 Monitor the recording and dissemination of information to ensure compliance with standards and protocols 2.3 Send, receive and act on reports according to relevant standards and protocols 2.4 Brief relevant organisations, agencies and personnel in relation to management of emergency disease or plant pest
3. Monitor and review the emergency disease or plant pest control program	3.1 Monitor emergency disease or plant pest control strategies continually to ensure that they are achieving the intended outcomes 3.2 Amend emergency disease or plant pest control plans as appropriate in line with expert advice, standards and protocols 3.3 Monitor resource requirements continually to ensure strategies are achieved
4. Revise emergency disease or plant pest control program	4.1 Revise emergency disease or plant pest control strategies and plans as required 4.2 Communicate changes to emergency disease or plant pest control strategies to appropriate personnel

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC BIO601A Plan and oversee an emergency disease or plant pest control program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBER601 Plan and oversee an emergency disease or plant pest control program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in an emergency disease or plant pest setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply standards, guidelines, protocols, and legislation in:
 - planning and amending a control program
 - recording information and disseminating
 - disseminating reports
 - identifying appropriate personnel along lines of communication as part of planning and overseeing an emergency disease or plant pest control program
- plan a control program around identified strategies with input of experts and submit to for approval
- identify declared areas that are within the jurisdiction of the control program
- brief appropriate personnel and organisations/agencies on developments and consequences of emergency disease or plant pest outbreak, and its ongoing management
- implement and monitor control plans utilising information management system and reporting as set out in standards and protocols
- monitor control strategies in use against the intended outcomes, and amend control plans as appropriate
- monitor resource requirements are sufficient to ensure strategies are achieved
- communicate revisions to control strategies and/or plans to appropriate personnel.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- AUSVETPLAN or PLANTPLAN, and other Nationally Agreed Standard Operating Procedures (NASOP), relevant standards, guidelines and protocols and associated manuals
- incident management functions

- phases of a response
- the requirements of relevant commonwealth, state and territory legislation
- strategies for controlling emergency disease or plant pest situations
- support agencies and sources of expertise
- control procedures relevant to the emergency disease or plant pest situation
- project management principles
- consequences and impacts of the outbreak and management controls
- information management system
- processes for monitoring and reviewing control plans, and resource expenditure
- human and physical resources required to implement the control plan
- methods of communicating with stakeholders.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC BIO201 Inspect and clean machinery for plant, animal and soil material

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to inspect and clean machinery of material that may contribute to the spread of weeds, pests or diseases.

The unit applies to individuals responsible for the inspection and cleaning of machinery that is being moved from one location to another to ensure that soil borne pathogens and weeds are not relocated to new sites.

This unit applies to individuals who work under general supervision and exercise limited autonomy. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Biosecurity (BIO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to work	1.1 Select and use appropriate personal protective equipment 1.2 Identify hazards and report to supervisor 1.3 Identify and check tools and materials required for the task
2. Inspect machinery and support vehicles	2.1 Make machinery and support vehicle safe before inspection and ensure free moving parts pinned or supported as required 2.2 Inspect machinery and equipment for contamination according to organisational biosecurity procedures and legislative requirements 2.3 Remove covers and guards safely 2.4 Recognise all points identified in legislation or operating procedures and inspect for contamination
3. Clean machinery, equipment and support vehicles	3.1 Select correct equipment and location of site for cleaning 3.2 Clean and check all points listed in appropriate regulations, checklists or organisational biosecurity procedures 3.3 Replace guards and covers safely
4. Complete cleaning work	4.1 Dispose of waste materials according to organisational procedures and relevant legislative requirements 4.2 Record cleaning history on appropriate forms according to organisational procedures
5. Report inspection results	5.1 Record inspection results on appropriate forms according to organisational procedures 5.2 Deliver inspection reports to appropriate person in the organisation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHC BIO201A Inspect and clean machinery for plant, animal and soil material.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC BIO201 Inspect and clean machinery for plant, animal and soil material

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select the equipment and personal protective equipment (PPE), and location of site for cleaning
- prepare to inspect and clean machinery and vehicles
- apply safe work practices in the context of own work
- inspect machinery for plant, animal and soil material and taking samples of contamination
- clean machinery, equipment and vehicles
- use PPE
- dispose of waste materials
- record cleaning history and inspection results
- deliver inspection reports to appropriate person
- apply biosecurity protocols in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- biosecurity protocols for particular contaminants relevant to industry and location
- types of contamination
- ways in which weeds, pests and soil borne diseases can be spread by machinery and equipment
- cleaning techniques appropriate to machinery, vehicles and types of contaminant
- machinery and equipment operating features important to know for inspection and cleaning
- safe work practices associated with inspecting and cleaning machinery

- methods of disposing of solid and liquid waste
- procedures for completing forms and delivery of reports.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC BIO202 Follow site quarantine procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to follow the organisation's procedures that reduce the likelihood of pathogenic organisms entering a quarantine site.

It applies to any personnel entering and leaving the quarantine area.

This unit applies to individuals who work under general supervision and exercise limited autonomy. They undertake defined activities and work in a structured context.

Licensing, legislative, regulatory or certification requirements may apply to this unit in some states and territories in relation to use of farm chemicals in quarantine situations, national vendor declarations, and movement of livestock and plant material. Therefore, it will be necessary to check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements before undertaking this unit.

Pre-requisite Unit

Nil.

Unit Sector

Biosecurity (BIO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to work in quarantine site	1.1 Check with supervisor on quarantine procedures and biosecurity protocols relevant to the site 1.2 Check all vehicles are decontaminated before entering the quarantine site, and if required leaving the site 1.3 Report contact with potential contaminants either within the site, or externally 1.4 Shower and change into work clothes if required 1.5 Select and apply appropriate personal protective equipment including footwear before commencing work 1.6 Store street clothing securely away from livestock, feed or other products 1.7 Wash hands before and after livestock, feed, plant stock or other products are handled 1.8 Check disinfectant levels in footbaths and use rigorously before entering quarantine site and before exiting site 1.9 Follow site exit procedures for decontaminating self, work clothing and personal protective equipment
2. Work in quarantine site	2.1 Handle and store chemicals and medications in accordance with site procedures 2.2 Store different feed mixes, soils, growing media and other products separately and mark appropriately 2.3 Identify cases of disease or pest infestation and report to supervisor 2.4 Identify breaches of quarantine procedures and report to supervisor 2.5 Identify work health and safety hazards and report to supervisor 2.6 Dispose of all waste products appropriately 2.7 Dispose of all deceased livestock, unwanted biological material or damaged or infected plant stock as instructed by supervisor 2.8 Record information relating to work in quarantine site
3. Assist in maintaining site quarantine procedures	3.1 Inform all visitors of the quarantine procedures and provide them with appropriate clothing and footwear if required 3.2 Check that visitors are signed in, have stated their recent activities and exposures and have washed or showered if required 3.3 Check that visitors sign out and follow site exit procedures 3.4 Note and report any observed breaches of quarantine procedures by visitors to supervisor 3.5 Keep gates and doors locked where required 3.6 Maintain security fencing according to supervisor's instructions 3.7 Check deliveries to site to ensure that established procedures for

Element	Performance criteria
	vehicle decontamination, unloading and receipt and holding or storage of stock and supplies are followed
4. Respond to site quarantine breach or problem	4.1 Identify and report a site quarantine breach or problem and report the location to supervisor 4.2 Secure any site quarantine breaches or problems 4.3 Clean and disinfect any quarantine breach sites as required according to the specific nature of the breach 4.4 Isolate livestock, plant stock or other items suspected of being exposed to contaminants and monitor for evidence of contamination 4.5 Treat or dispose of all contaminated stock and materials 4.6 Record information about the breach or problem

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC BIO202A Follow site quarantine procedures.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC BIO202 Follow site quarantine procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- meet site security and entry/exit requirements for vehicles, apparel and personal hygiene and safety
- follow procedures and biosecurity protocols for handling and storing chemicals, medications, feed mixes, soils, growing media and other products
- report disease/pest infestation, breaches of quarantine procedures and work health and safety hazards to supervisor
- dispose of waste products, deceased livestock, unwanted biological material, damaged or infected plant stock, contaminated stock and contaminated material as instructed
- record information related to work in quarantine area, including any breach or problem
- maintain security of quarantine site, any site identified as a quarantine breach and any site considered a problem area
- direct visitors in their obligations to follow quarantine procedures
- control site deliveries to ensure quarantine procedures are followed
- follow quarantine procedure and biosecurity protocols in responding to a site quarantine breach or problem
- clean and disinfect any quarantine breach sites
- isolate and monitor livestock, plant stock or other items suspected of being exposed to contaminants.

Knowledge Evidence

The participant must demonstrate knowledge of:

- site quarantine procedures and biosecurity protocols for:

- disposal of waste products, diseased livestock, unwanted biological material, damaged or infected plant stock, contaminated stock or contaminated material
- directing visitors at the quarantine site
- reporting diseases and pest infestations problem, work health and safety hazards
- handling and storing chemicals, medications, feed mixes, soil, growing media
- controlling entry of deliveries to a quarantine site
- isolating livestock and monitoring livestock
- cleaning and disinfecting quarantine area
- maintaining security for the quarantine site
- recording information about own work and any quarantine breaches
- personal protective equipment appropriate to site quarantine procedures and biosecurity protocols
- work health and safety hazards
- methods for cleaning and disinfecting quarantine site or area of quarantine breach
- biosecurity protocols and how they apply to the work site, industry and in the context of a work role.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC BIO302 Identify and report unusual disease or plant pest signs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recognise unusual disease or plant pest signs during day-to-day work and take appropriate reporting action.

The unit is typically performed by those who have daily contact with plants, birds, animals or fish. It would usually be carried out in conjunction with routine animal or plant husbandry tasks.

This unit applied to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They provide and communicate solutions to a range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Biosecurity (BIO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify signs of unusual disease or a plant pest	1.1 Identify signs of disease or a plant pest 1.2 Compare signs of disease or a plant pest with own experience of common endemic disease or a plant pest in the species 1.3 Assess severity and extent of the problem in the species where signs indicate an unusual disease or a plant pest 1.4 Seek immediate advice from supervisors, professionals or appropriate authorities when signs indicate an unusual disease or a plant pest
2. Report signs of unusual disease or a plant pest	2.1 Report signs of unusual disease or a plant pest to appropriate authorities immediately 2.2 Implement biosecurity measures according to enterprise biosecurity plans and instructions from appropriate authority

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC BIO302A Identify and report unusual disease or plant pest signs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC BIO302 Identify and report unusual disease or plant pest signs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify unusual disease or pest signs
- assess the severity and extent of problem in the disease or pest species
- seek advice from supervisors or professionals
- notify appropriate authorities
- implement appropriate biosecurity measures.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- signs of common endemic diseases or plant pests in the species
- signs indicating unusual disease or plant pests
- methods for assessing severity and extent of problem
- biosecurity measures associated with enterprise biosecurity plans
- the process of reporting any unusual findings to appropriate authorities.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC BIO305 Apply biosecurity measures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to apply control measures as set out in a farm/enterprise biosecurity plan. Farm biosecurity is a set of measures designed to protect a property from the entry and spread of pests and diseases.

All aspects of the unit must be undertaken in line with legislative requirements, workplace policies and procedures and accepted safe practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They provide and communicate solutions to a range of predictable problems.

Licensing, legislative, regulatory or certification requirements may apply to this unit in some states and territories in relation to use of farm chemicals in quarantine situations, national vendor declarations, and movement of livestock and plant material. Therefore, it will be necessary to check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements before undertaking this unit.

Pre-requisite Unit

Nil.

Unit Sector

Biosecurity (BIO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify biosecurity control measures applicable to enterprise	1.1 Access enterprise biosecurity plan 1.2 Identify animal/plant diseases or pests that are considered biosecurity threats to the enterprise from the plan and other sources of information 1.3 Identify control measures to minimise the risk of identified animal/plant diseases or pests entering the property 1.4 Confirm your responsibility for applying control measures in regular work routines, with supervisor
2. Apply control measures to farm inputs	2.1 Apply control measures identified in the property biosecurity plan as applicable for farm inputs 2.2 Incorporate the property control measures into work routines seeking clarification from supervisor as needed
3. Apply control measures to support farm outputs	3.1 Apply control measures identified in the property biosecurity plan as applicable to farm outputs 3.2 Incorporate control measures into work routines seeking clarification from supervisor as needed
4. Apply control measures to movement of people, animals, vehicles and equipment	4.1 Apply control measures identified in the property biosecurity plan as applicable to the movement of people, animals, vehicles and equipment 4.2 Incorporate control measures into work routines seeking clarification from supervisor as needed
5. Apply control measures to production practices	5.1 Apply control measures identified in the property biosecurity plan as applicable to farm production practices 5.2 Incorporate control measures into work routines seeking clarification from supervisor as needed
6. Apply control measures to control wild and feral animals, plant pests and weeds	6.1 Identify control measures identified in the property biosecurity plan as applicable for wild and feral animals, animal and plant pests and weeds 6.2 Incorporate control measures into work routines seeking clarification from supervisor as needed
7. Maintain records related to biosecurity	7.1 Keep records for sales and purchases for traceability of farm inputs and farm outputs (both trace back and trace forward) 7.2 Request and retain vendor declarations or statements for the statutory period, and as required by state and territory legislation 7.3 Retain monitoring and surveillance data
8. Monitor biosecurity	8.1 Monitor effectiveness of control measures in addressing risks

Element	Performance criteria
procedures	8.2 Monitor work duties of self and others to ensure biosecurity control measures are applied appropriately 8.3 Report issues and concerns with biosecurity to management 8.4 Participate in biosecurity training when opportunities arise

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC BIO305 Apply biosecurity measures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- locate information from the farm/enterprise biosecurity plan and government and industry biosecurity websites, on:
 - animal/plant diseases and pests that are potential biosecurity threats to enterprise
 - control measures that can minimise the risk of diseases or plant pests entering or spreading from the property
- apply control measures in work routines for:
 - farm inputs
 - farm outputs
 - movement of people
 - movement of animals
 - vehicles and equipment
 - production practices
 - controlling feral and wild animals, pests and weeds
- maintain records for traceability of farm inputs and farm outputs, and monitoring and surveillance data
- monitor control measures for effectiveness in addressing risks
- monitor work of self and others for compliance with control measures
- report biosecurity issues and concerns to management
- participate in biosecurity training.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- government and industry biosecurity websites relevant to farm biosecurity plan
- diseases or plant pests that pose a biosecurity threat to enterprise
- biosecurity control measures relevant to enterprise for:
 - farm inputs
 - farm outputs
 - movement of people
 - movement of animals
 - vehicles and equipment
 - production practices
 - feral and wild animals, pests and weeds
- record keeping for traceability (both trace back and trace forward) of farm inputs and outputs
- record keeping for retention of monitoring and surveillance data
- processes for monitoring effectiveness of control measures
- process for reporting biosecurity concerns and issues
- sources of information on biosecurity training.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC BIO403 Plan and implement a farm or enterprise biosecurity plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and implement a farm or enterprise biosecurity plan which includes a set of measures designed to protect a property from the entry and spread of pests and diseases.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

Licensing, legislative, regulatory or certification requirements may apply to this unit in some states and territories in relation to use of farm chemicals in quarantine situations, national vendor declarations, and movement of livestock and plant material. Therefore, it will be necessary to check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements before undertaking this unit.

Pre-requisite Unit

Nil.

Unit Sector

Biosecurity (BIO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify relevant information for developing a biosecurity plan	1.1 Interpret biosecurity guidance in industry standards and protocols relevant to enterprise 1.2 Identify known disease, pest and weed seed threats relevant to enterprise 1.3 Identify current access points on the property through which staff, visitors, machinery, equipment, vehicles, farm inputs and farm outputs pass
2. Develop control measures and procedures for controlling farm inputs	2.1 Research farm inputs relevant to the enterprise and identify practices to minimise risk of introducing and spreading disease, pests and weeds 2.2 Establish control measures and procedures as required for controlling farm inputs 2.3 Seek vendor declarations or animal health statements
3. Develop control measures to support biosecurity for farm outputs	3.1 Research farm outputs relevant to the enterprise and identify practices to minimise risk of spreading disease, pests and weeds 3.2 Establish control measures as required to support biosecurity for farm outputs 3.3 Provide and retain supporting documentation
4. Develop control measures for movement of people	4.1 Research the movement of people relevant to the enterprise and identify practices to minimise risk of spreading disease, pests and weeds 4.2 Establish control measures as required for movement of people 4.3 Arrange appropriate signage to support established control measures
5. Develop control measures for vehicles and equipment	5.1 Research the role of vehicles and equipment relevant to the enterprise and identify practices to minimise risk of spreading disease, pests and weeds 5.2 Establish control measures as required for vehicles and equipment as required
6. Develop control measures for production practices	6.1 Research production practices relevant to the enterprise and identify practices to minimise risk of spreading disease, pests and weeds 6.2 Establish control measures as required for production practices
7. Develop control measures for control of feral animals, plant pests and weeds	7.1 Identify feral animals, plant pests and weeds relevant to the enterprise and determine options for their control 7.2 Establish and document control measures as required for control of feral animals, plant pests and weeds
8. Develop control measures for training staff and keeping	8.1 Identify and document staff training required to implement control measures 8.2 Establish recording requirements in accordance with industry best

Element	Performance criteria
records	practice
9. Implement, monitor and review biosecurity plan	9.1 Conduct a property risk assessment and identify risk factors for pest and disease spread 9.2 Identify appropriate control measures 9.3 Document control measures in the form of a property biosecurity plan 9.4 Develop a biosecurity plan that is achievable and cost effective with short and long term goals 9.5 Induct and train staff in control measures relevant to their role and responsibility 9.6 Monitor staff performance in adhering to control measures 9.7 Monitor effectiveness of control measures and progress against the program timelines, and identify improvements that can be made 9.8 Monitor industry standards and protocols relevant to biosecurity and incorporate into the on farm biosecurity plan 9.9 Revise and amend risk assessment and control measures 9.10 Review staff training and induction records to ensure staff are able to implement biosecurity control measures appropriate to their position

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHC BIO403A Plan and implement a biosecurity program.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC BIO403 Plan and implement a farm or enterprise biosecurity plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine biosecurity threats to farm or enterprise and control measures using standards and protocols
- identify sources of current biosecurity best practice
- identify current access points to property
- establish control measures and procedures for:
 - controlling farm inputs including:
 - new plants or animals
 - the quality of water sources
 - bee hives coming onto the property
 - bedding material
 - records of source, and use of organic and inorganic fertiliser
 - measures to support biosecurity for farm outputs including:
 - harvest bins
 - packaging operations
 - transport and movement of plants, produce, livestock and livestock products, and plant waste
 - intensive rearing of young animals
 - animal breeding facilities
 - animal milking facilities
 - maintaining records
 - movement of people including:
 - controlled access points and production areas

- visitors, their vehicles, and risk profile
- general hygiene
- vehicles and equipment including:
 - equipment hygiene
 - dedicated equipment use
 - storage areas
 - vehicle entry points
 - vehicle movement and parking
 - vehicle hygiene and washes
 - run off from wash areas
 - roads and tracks
- production practices including:
 - water management
 - plant byproducts and waste
 - animal manure and waste effluent
 - feed storage, feed spills and disposal of unwanted feed
 - feed and water troughs
 - product storage
 - resistance to chemicals
 - animal disease control
 - monitoring and surveillance
 - monitoring frequency
 - fencing
- control of feral animals, plant pests and weeds including:
 - wild and feral animals
 - boundary fences
 - property cleanliness
 - weeds
 - volunteer plants
 - straying animals
 - agisted or other visiting animals
 - property and land destruction
- training staff and keeping records including:
 - staff training
 - traceability (both trace back and trace forward)
 - animal health assurance
 - vendor declarations and animal health and product statements
 - monitoring and surveillance data
- seek vendor declarations or animal health statements for:

- quality and disease free assurance status of animals, animal feed and compliance with national, state and territory standards and regulations and industry health assurance programs
- disease and weed free status of organic fertilisers and compliance with Industry Purchasing Code of Practice or equivalent quality controls
- purchased animal bedding material being fit for purpose
- provide and retain supporting documentation for:
 - moving plants, or animals on and off the property
 - appropriate chemical usage and storage in accordance with industry best practice
- develop, document, and induct and train staff in control measures for:
 - controlling farm inputs
 - biosecurity for farm outputs
 - movement of people
 - vehicles and equipment
 - production practices
 - control of feral animals, plant pests and weeds
 - training staff
 - keeping records
- develop a plan for implementing biosecurity
- monitor staff performance
- monitor effectiveness of control measures, and identify improvements
- revise and amend control measures as needed
- review staff training and induction records.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- national industry standards and guidelines relevant to farm or enterprise biosecurity
- Nationally Agreed Standard Operating Procedures (NASOP) relevant to farm or enterprise biosecurity plan
- diseases, pests and weeds that pose a threat and potential causes of spread
- principles of risk management applied to biosecurity
- biosecurity practices for:
 - farm inputs
 - farm outputs
 - people, vehicles and equipment
 - production
 - feral animals, pests and weeds
 - training staff, biosecurity planning, and maintaining records
- planning processes for costing, allocating resources and establishing timelines
- processes for improving staff performance.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS301 Use hand held e-business tools

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to use hand held e-business tools including computers, personal data assistants, (PDAs), radio frequency (RF) scanners, microchip scanners, mobile phone enabled email and SMS, data recording devices, barcoding equipment.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes and in consultation with the management team.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They must use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare hand held e-business tools for use	1.1 Select e-business tools 1.2 Complete relevant start-up procedures 1.3 Configure tools with business data 1.4 Test connectivity
2. Use hand held e-business tools	2.1 Use e-business tools 2.2 Address equipment faults 2.3 Check data for accuracy and address errors
3. Process business data	3.1 Generate and compile business data 3.2 Process business data 3.3 Maintain the integrity of data and data security 3.4 Review performance of hand held e-business tools and make recommendations for improvements to hardware, software or their use in accordance with e-business strategy and budget

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS301A Use hand held e-business tools.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS301 Use hand held e-business tools

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare hand held e-business technology
- use relevant technology such as computers, handheld scanners, and barcoding equipment
- enter and process data according to technical and business requirements
- generate data in the format required by the e-business supply chain.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- features and operating procedures of relevant business tools
- relevant protocols for electronic data interchange
- personal identification and password for online access between businesses for access to inventory data and purchasing, payment or supply processes.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS401 Administer finance, insurance and legal requirements

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to administer finance, insurance and legal requirements.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Administer the legal requirements of the business	1.1 Identify, implement and monitor legislative requirements to ensure the compliance of business processes 1.2 Identify, maintain and store legal documents 1.3 Review legislative requirements regularly
2. Process and maintain the insurance requirements for the business	2.1 Identify and assess insurance requirements 2.2 Identify suitable insurers or brokers and obtain quotations 2.3 Acquire adequate insurance policies and cover 2.4 Review legislative requirements and insurance cover 2.5 File documents to ensure security and accessibility
3. Identify sources, types and cost of finance	3.1 Conduct research on the types of finance for businesses 3.2 Determine costs associated with different forms of finance 3.3 Assess repayment structures for finance options
4. Prepare application for finance or investment	4.1 Access business and financial data and prepare an application for finance or investment 4.2 Complete an application for finance 4.3 Refer the finance application to management team for checking prior to submitting to the relevant body 4.4 Maintain and store documentation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS401A Administer finance, insurance and legal requirements.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS401 Administer finance, insurance and legal requirements

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret financial reports and farm business data
- maintain basic accounts
- administer the legal requirements of the business
- process and maintain the insurance requirements for the business
- identify sources, types and cost of finance
- prepare an application for finance or investment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- business processes and legal requirements
- insurance processes and legal requirements
- finance processes and legal requirements
- taxation and account keeping requirements.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS402 Cost a project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to cost a project.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine resources required for the project	1.1 Identify and interpret project objectives, required work activities and available finance in line with enterprise guidelines and

Element	Performance criteria
	legislative requirements where required 1.2 Identify resources required for project works 1.3 Identify factors affecting resource costs using available information 1.4 Select and use appropriate tools, equipment and technology for the calculation and documentation of project costs
2. Calculate individual itemised costs of the project	2.1 Calculate unit and total cost for each resource item 2.2 Evaluate total itemised resource costs against the financial schedule for the project 2.3 Make adjustments where required to reconcile resource costs with project schedules 2.4 Identify and determine costs for peripheral works arising from the project
3. Prepare a summary of the cost of the project	3.1 Collate and schedule resource costs 3.2 Calculate and record total project costs 3.3 Submit financial summary for approval

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS402A Cost a project.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS402 Cost a project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify resources for a project
- investigate options for material supplies, services, contractors and consultants
- research prices for required resources
- calculate costs for the project
- document a summary of project costs.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant State and Federal legislation, awards, enterprise agreements and management policies relating to the project
- project costing technology and software
- current pricing structures and options for material supplies, services, contractors and consultants.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS404 Operate within a budget framework

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate within a budget framework.

All work must be carried out to comply with organisational requirements, legislation and codes and in consultation with the management team.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Participate in formulation of a	1.1 Gather budget planning information from relevant sources 1.2 Identify priorities in relation to the organisation's vision and plans

Element	Performance criteria
budget	1.3 Identify known sources of income as well as new sources of income 1.4 Review expenditure for existing operations 1.5 Review overhead expenditure 1.6 Estimate expenditure for new initiatives and expansion 1.7 Request budget variations to suit organisational needs
2. Supervise financial transaction	2.1 Arrange expenditure within budget delegations 2.2 Record transactions to meet taxation and accounting requirements 2.3 Compare actual sales and expenditure to the enterprise budget 2.4 Check financial reports to ensure operations are within forecast limits 2.5 Adjust expenditure to meet financial targets as required 2.6 Report actual and potential variations in budgeted income 2.7 Develop recommendations to address budget variations

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS404A Operate within a budget framework.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS404 Operate within a budget framework

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify typical information to be included in a budget
- review budgeted income and expenditure and compare to actuals
- record transactions and allocate them to cost and income categories
- identify and report budget variations
- review production and expenditure plans to meet financial targets.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- income and expenditure categories
- budgeting procedures and templates
- taxation and accounting requirements for recording financial transactions
- costing and forecasting mechanisms
- cash flow analyses and records`
- recording systems
- records of receipts and expenditure
- work reports
- factors that impact upon the timing of sales and purchases, including taxation, GST, and market conditions.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS405 Participate in an e-business supply chain

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to participate in an e-business supply chain.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take responsibility for their own work and who provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare e-business systems and	1.1 Identify and validate supply chain requirements

Element	Performance criteria
procedures	1.2 Identify required technology hardware and software and determine if purchases are required 1.3 Develop policies and procedures to guide business relations and operations to support supply chain requirements 1.4 Develop supporting business processes and outputs or redevelop to support requirements of the e-business supply chain 1.5 Provide information and development support to staff, customers and suppliers
2. Implement e-business systems and procedures	2.1 Implement production processes required by e-business supply chain 2.2 Conduct online purchasing, selling and payments as required by the e-business supply chain with reference to associated risk management strategies and relevant legal and ethical requirements 2.3 Identify and adjust business processes and data flows required by the e-business supply chain 2.4 Implement actions to build trust and foster a supply chain culture
3. Monitor and review e-business systems and procedures	3.1 Integrate and monitor e-business innovations into the business to gauge their usefulness and maximise implementation 3.2 Review e-business innovation in consultation with users and document and evaluate recommendations for improvement or further innovation 3.3 Analyse business data and reports to compare outcomes, budgets, timelines and forecasts to actual performance 3.4 Review technology performance and make recommendations for improvements to hardware, software and their use in accordance with e-business strategy and budget 3.5 Use feedback and evaluation results to plan and improve future supply chain management strategies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS405A Participate in an e-business supply chain.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS405 Participate in an e-business supply chain

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- use relevant technology such as computers, internet and email
- prepare production data in the required format
- meet timelines required by the e-business supply chain
- define the business model and how it can use e-business
- develop procedures and systems for e-business
- implement an e-business supply chain
- monitor and review e-business systems.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- entire supply chain from raw materials to producers, component suppliers, manufacturers, wholesalers, third party service providers, retailers, customers and recyclers, plus freight, distribution and cash flow
- technology hardware and software requirements of the e-business supply chain
- protocols for electronic data access and interchange
- protocols for electronic funds transfer
- protocols for e-business legal and security issues.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS501 Manage staff

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage staff.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes and in consultation with the management team.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine employment requirements	1.1 Identify tasks and conditions under which performance occurs 1.2 Identify industrial relations requirements to ensure adherence to relevant award conditions,

Element	Performance criteria
	1.3 Determine most appropriate employment arrangements based on employer and employee needs, responsibilities and rights 1.4 Negotiate enterprise agreements and contracts of employment,
2. Manage workforce performance	2.1 Develop induction programs for each employee consistent with legislative requirements 2.2 Clarify and establish terms of engagement for consultants and contractors 2.3 Conduct induction programs for new internal and external appointees and establish appropriate records 2.4 Develop and implement strategies for communicating with workers 2.5 Develop and implement performance management strategies 2.6 Develop and implement strategies to resolve disputes and conflicts 2.7 Identify and follow processes for the termination of non-performing staff
3. Implement work health and safety priorities and procedures	3.1 Develop and communicate safety policies 3.2 Identify and design safe work practices for the enterprise 3.3 Communicate and enforce safe work practices 3.4 Involve all members of staff in hazard identification and risk assessment 3.5 Induct new staff into the work health and safety system
4. Support workforce training programs	4.1 Develop strategies to identify and address skill and knowledge gaps 4.2 Provide on-job training to optimise worker performance and ensure safety and fairness in the workplace 4.3 Identify off-job training requirements and source and support training
5. Manage administrative support	5.1 Implement procedures for the administration of staff records 5.2 Implement administrative procedures to meet legislated requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS501A Manage staff.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS501 Manage staff

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine work requirements
- develop and implement strategies to manage workforce performance
- prepare task descriptions
- arrange employment of workforce members
- implement work health and safety policies, procedures and priorities
- review labour productivity
- manage the performance of staff
- implement procedures for the administration of staff records
- manage industrial relations.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- task descriptions
- equal opportunity and equal employment opportunity legislation
- work health and safety legislation
- relevant industrial awards
- performance management approaches
- personnel management strategies
- employee induction programs
- contracts of employment
- unfair dismissal legislation
- job specifications
- interviewing procedures.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS502 Market products and services

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to market products and services.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Analyse market	1.1 Identify, research and analyse existing or new markets for

Element	Performance criteria
information	<p>existing or new products or services using techniques to ensure reliable data</p> <p>1.2 Analyse past trends and developments to determine market variability and associated risks</p> <p>1.3 Develop gross margin budgets to account for market variability</p> <p>1.4 Identify and evaluate competing products to determine strengths and weaknesses of own products</p> <p>1.5 Monitor market environment to ensure information is current and reliable</p> <p>1.6 Identify the legal, ethical and environmental constraints of the markets and their effect on the enterprise</p> <p>1.7 Identify product specifications that suit market requirements and price advantage at the time</p> <p>1.8 Present clear and concise information to the enterprise management team</p>
2. Identify and evaluate factors to include in a marketing plan	<p>2.1 Identify and evaluate production processes to ensure required product specifications are met</p> <p>2.2 Identify and assess alternative selling strategies and techniques to identify marketing targets and methods</p> <p>2.3 Identify and assess distribution channels and their role in your marketing strategies</p> <p>2.4 Ensure the data used is reliable and the market environment and trends are substantiated</p> <p>2.5 Evaluate the role of marketing professionals in providing advice</p>
3. Develop a marketing plan for your products and services	<p>3.1 Establish marketing objectives based on current and potential product specifications</p> <p>3.2 Select appropriate production processes to ensure product specifications are met</p> <p>3.3 Select selling strategies to ensure required prices are achieved</p> <p>3.4 Select appropriate distribution channel options to ensure access to target markets is achieved efficiently and appropriately</p> <p>3.5 Establish time-frames for production, distribution and selling activities</p> <p>3.6 Develop a gross margin budget to demonstrate the cost effectiveness of the marketing plan</p> <p>3.7 Develop partial gross margin budgets to account for market variability</p>
4. Determine promotional strategies	<p>4.1 Prepare and record detailed plans for promotional activities</p> <p>4.2 Outline objectives, level of exposure and available markets</p> <p>4.3 Ensure strategies take account of time management and</p>

Element	Performance criteria
	scheduling issues, and resource constraints 4.4 Create promotional materials that enhance the product and commercial presentation 4.5 Record and communicate priorities, responsibilities, timelines and budgets for promotional activities
5. Implement marketing activities	5.1 Schedule planned marketing activities within appropriate timeframes 5.2 Develop measurable performance targets that meet business plan objectives 5.3 Organise distribution channels and ensure product and service information is accurate and readily available to clients 5.4 Implement marketing activities within budgetary constraints to meet legal, ethical and enterprise requirements
6. Evaluate marketing performance	6.1 Review the established marketing objectives to ensure they remain viable 6.2 Make an objective assessment of the marketing plan and its implementation by a comparison of valid and reliable data against the established objectives 6.3 Assess product, pricing and distribution policies in relation to market changes, marketing objectives and enterprise requirements 6.4 Identify areas of positive marketing performance and take corrective action to remedy poor marketing performance areas 6.5 Document and distribute information for continual analysis and effective planning management

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS502A Market products and services plus AHCBUS505A Develop a marketing plan.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS502 Market products and services

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect, analyse and present data in the internal and external business environment
- identify the marketable features of the product and potential markets
- assess alternative marketing strategies and techniques to meet business plan objectives
- evaluate performance targets and recommend modifications or improvements
- plan, implement and evaluate a marketing strategy
- plan to manage promotional activities
- develop and manage budgets
- monitor product, pricing and distribution policies to improve market performance.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- financial management and budgeting
- price risk management
- performance evaluation measures
- competitors strengths and weaknesses
- business planning process
- customer relations policies
- market conditions and forces
- enterprise goals, objectives and directions
- markets and market analysis
- communication and promotion skills
- sales and marketing principles and practices

- principles of trend analysis
- legal issues that affect marketing activities (trade practices, Fair Trading Acts, Sales of Goods Acts)
- industry and marketing knowledge including sales networks and distribution systems, and customer trends and preferences
- demographic studies and their application in the development of a marketing plan.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS503 Negotiate and monitor contracts

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to negotiate and monitor contracts.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes and in consultation with the management team.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Define agreements	1.1 Identify and define the enterprise requirements of a business

Element	Performance criteria
with external parties to the business for service provision	relationship with external sources 1.2 Establish the ranges of acceptable outcomes from a negotiation 1.3 Make contact with individuals, bodies or corporations and discuss requirements of an agreement 1.4 Clarify communication channels between all parties 1.5 Exchange references where applicable 1.6 Maintain sound practice and procedure for business meetings and document discussions and agreements
2. Complete the formal agreement	2.1 Ensure negotiations conform to established enterprise requirements and relevant legislation 2.2 Document requirements of the contract 2.3 Clarify and resolve areas of ambiguity or concern 2.4 Ensure conditions for service or supply are agreed between the parties including the key performance indicators 2.5 Undertake alternative processes where agreement is unable to be reached 2.6 Confirm the agreement based on mutually acceptable terms 2.7 Ensure penalties or redress for non-performance 2.8 Sign and exchange contract documentation between the relevant parties
3. Monitor the performance of contracts	3.1 Identify the rights and obligations of parties to a contract and implement appropriate methods of addressing non-performance 3.2 Identify and consult professional and regulatory bodies available to support commercial grievance processes 3.3 Monitor completion of contract against key performance indicators 3.4 Advise parties of issues in respect to non-compliance in writing

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS503A Negotiate and monitor contracts.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS503 Negotiate and monitor contracts

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- establish agreements with sources external to the enterprise
- complete contract documentation
- monitor the performance of contracts
- negotiate to obtain a fair outcome.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- contract and commercial law applicable to the type of agreement
- processes of formulation and negotiation of contracts
- enterprise business policies and plans including procedures for maintenance of confidentiality.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS504 Prepare estimates, quotes and tenders

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare estimates, quote and tenders.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes and in consultation with the management team.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Carry out preliminary planning activities for	1.1 Identify nature and scope of the project in consultation with the

Element	Performance criteria
estimating, quoting and tendering	client 1.2 Confirm format, specifications and deadline for submission with the client 1.3 Interpret available relevant documentation 1.4 Inspect project site and reconcile with scaled drawings, project and other site plans
2. Determine resource requirements	2.1 Interpret and record detailed project information and financial requirements from client specifications 2.2 Identify and estimate size, type and quantity of required project resources 2.3 Identify and evaluate sources for the procurement of suitable project resources 2.4 Calculate the size, type and quantity of resource items 2.5 Calculate and document unit and total cost for resource items 2.6 Determine and document contingencies 2.7 Record calculations on a price summary sheet
3. Prepare schedules for the estimate, quote or tender	3.1 Document works schedule according to client specifications 3.2 Document scheduling of resources consistent with the requirements of the works schedule 3.3 Document scheduling of financial requirements
4. Prepare and document the estimate, quote or tender for submission to the client	4.1 Calculate and check estimate, quote or tender price 4.2 Compile costed summaries and works, resource and financial schedules 4.3 Adhere to quality assurance requirements, enterprise customer service procedures, conventional formatting and industry standards in the development of documentation 4.4 Complete and submit total estimate, quotation or tender by the specified date 4.5 Provide further information and make adjustments according to client requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS504A Prepare estimates, quotes and tenders.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS504 Prepare estimates, quotes and tenders

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research the details of the quoted service and clarify with the client
- identify requirements for estimate, quote or tender including format, specifications and deadline for submission
- identify and cost the resources and services required to fulfil the tender and check for availability
- investigate options for supplies, services, contractors and consultants with current pricing structures and availability
- develop a work schedule with timelines and expenditure
- consider potential problems and risks and develop contingency plans
- develop detailed costing sheets with the final quoted cost, including an estimated margin for risk
- submit the completed tender to the client with supporting information including details of organisations previous work and client feedback
- seek feedback from the client to ensure information supplied is sufficient.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant State and Federal legislation, awards, enterprise agreements and management policies relating to labour hire and employment terms
- current pricing structures and options for supplies, services, contractors and consultants
- enterprise and industry standards and practices for formatting, organising and presenting financial and quantitative information
- business ethics in relation to confidentiality and the tendering process.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS506 Develop and review a business plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and review a business plan.

This unit applies to those whose role is to set the short, medium or long term goals and targets for the business plan and may relate to marketing and production targets, resource and asset development and management, acquisitions, capital, property improvements, and operational systems.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine scope of business plan	1.1 Determine scope of the business plan and associated systems in consultation with key and specialist personnel 1.2 Access information to inform business plan development 1.3 Account for and incorporate trends and seasonal variations 1.4 Account for strategic goals, targets and directions of the enterprise 1.5 Ensure legal obligations are understood and compliance requirements identified
2. Prepare business plan	2.1 Develop operational goals and targets that enhance opportunities to meet the enterprise strategic plan 2.2 Ensure indicators of operational performance are clear and measurable and allow for realistic analysis of performance 2.3 Identify and include resource requirements and input supply chain options 2.4 Identify and incorporate human resource strategies 2.5 Identify and incorporate marketing strategies 2.6 Identify risks for the business and develop minimisation strategies 2.7 Identify mechanisms to test budgetary impact and operational potential before implementation
3. Document and review business plan	3.1 Include financial and operational systems that enhance performance management and suit enterprise requirements 3.2 Document and communicate business plan to relevant parties 3.3 Monitor performance against the business plan to identify strengths, weaknesses and areas for improvement 3.4 Make recommendations to improve the business plan and associated systems

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS506A Develop and review a business plan.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS506 Develop and review a business plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- set strategic goals, targets and directions for the enterprise
- determine clear and measurable indicators of operational performance
- identify and design risk management and mitigation strategies
- develop appropriate operational plans
- document the business plan
- monitor the business plan to identify strengths, weaknesses and areas for improvement
- analyse information and results.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- budgeting
- business forecasting
- relevant industrial awards and agreements
- communication techniques
- risk management factors and priorities
- marketing strategies
- indicators of operational performance
- financial and operational systems and resource considerations relevant to business planning
- logical and analytic methods
- profit and loss and cash flow systems

- industrial relations, taxation, corporate and industry legislation, environmental and work health and safety legislation as they relate to the enterprise
- capital investment analysis.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS507 Monitor and review business performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor and review business performance.

All work must be carried out to comply with organisational requirements, work health and safety legislation, sustainability practices and codes and in consultation with the management team.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify performance	1.1 Develop realistic performance indicators within available

Element	Performance criteria
requirements	timeframes and resources 1.2 Identify and minimise factors inhibiting performance against objectives 1.3 Identify and assess market conditions based on relevant data and transferable and justifiable assumptions 1.4 Identify capacity to promote the sustainability of operations and incorporate into enterprise procedures
2. Evaluate enterprise performance	2.1 Gather and analyse data relating to enterprise production and financial performance to identify historical and current performance 2.2 Review and analyse operational structures to determine the suitability of organisational processes to enterprise objectives 2.3 Evaluate enterprise strengths and weaknesses against market conditions to determine current and future capacities 2.4 Monitor impact of natural conditions on enterprise performance 2.5 Assess sustainability of resource use 2.6 Evaluate performance against enterprise objectives to identify variations and scope for future development
3. Review business performance	3.1 Review business operations to identify opportunities for improvements in performance 3.2 Review business financial performance to identify opportunities for improvement 3.3 Review business marketing performance to identify opportunities for improvement 3.4 Review business risk management performance to identify opportunities for improvement

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS507A Monitor and review business performance.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS507 Monitor and review business performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- gather and analyse data relating to enterprise performance
- review operational structures to determine effectiveness
- identify available resources to assess capacity
- develop realistic performance indicators
- review enterprise operations against performance indicators
- plan to improve business performance by addressing results of review
- monitor and manage resources
- assess sustainability of resource use.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- rates of return for products and services
- financial analysis techniques
- structure and operation of small businesses and the relevant State and Territory work health and safety
- legislative requirements
- environmental conditions, positive environmental practices and negative impact minimisation measures
- human resource requirements for the enterprise
- transport requirements for the enterprise
- enterprise and property improvement requirements
- market performance in commodities

- statutory marketing requirements.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS508 Prepare and monitor budgets and financial reports

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and monitor budgets and financial reports.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes and in consultation with the management team.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare a budget	1.1 Obtain information on past receipts and payments and compare to

Element	Performance criteria
	current prices and cost trends 1.2 Prepare gross margin projections for each production enterprise of the business 1.3 Identify projected non-enterprise income and overhead costs for the business 1.4 Identify projected capital-based income and costs for the business 1.5 Prepare a plan for a period which allows for expected income and expenditure, using the 'most likely' prices and costs 1.6 Ensure the plan allows the business to meet financial reporting requirements
2. Implement and monitor a budget	2.1 Monitor receipts and payments and reconcile against the original budget 2.2 Allocate funds in accordance with budget objectives and parameters 2.3 Identify variances against the original plan and calculate the impact on overall profit and loss and cash flow 2.4 Make adjustments to the original plan for the remainder of the budget period where necessary to respond to unacceptable variations 2.5 Renegotiate and restructure budgets and plans to optimise enterprise performance
3. Prepare financial report	3.1 Maintain records of financial performance 3.2 Assemble information with source documents according to the requirements of the report recipient 3.3 Prepare financial reports to meet both management and legislative requirements 3.4 Forward documentation in a timely and efficient manner

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS508A Prepare and monitor budgets and financial reports.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS508 Prepare and monitor budgets and financial reports

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a budget
- prepare financial reports to meet industry standards
- monitor receipts and payments
- negotiate and restructure budgets
- implement and monitor a budget.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- budget formulation
- financial information systems
- budget analysis and reporting processes
- standards for organisational recordkeeping and audit requirements.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS509 Develop and implement business structures and relationships

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and implement business structures and relationships.

This unit applies to those who participate in the establishment of a primary production business and communicate the roles and responsibilities of family members within such a business.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and establish an appropriate rural business structure	1.1 Identify options for the business structure 1.2 Assess legal and taxation implications of each option 1.3 Assess the advantages and disadvantages of each option for this business 1.4 Establish an appropriate business organisational structure in consultation with members of the business unit 1.5 Establish administrative procedures to ensure full compliance within the chosen structure
2. Identify and establish the roles and responsibilities within the business unit	2.1 Identify and discuss roles and responsibilities within the business 2.2 Allocate individual roles and responsibilities to members of the business unit 2.3 Assess roles and responsibilities of family members in accordance with succession and estate planning requirements 2.4 Prepare, update and store wills
3. Develop and implement stress management strategies	3.1 Identify potential causes of stress within a rural business environment 3.2 Develop stress management strategies in consultation with family and other employees 3.3 Implement strategies to minimise stress within the family and the workplace 3.4 Review stress management strategies regularly
4. Access rural networks and support groups	4.1 Identify relevant rural networks and support groups 4.2 Develop appropriate interpersonal skills to facilitate and promote positive relations within the business 4.3 Develop and maintain relationships to promote the rural business 4.4 Identify and access networking opportunities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS509 Develop and implement business structures and relationships

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research and identify appropriate sources of information
- establish and implement business organisational structure in consultation with members of the business unit
- develop roles and responsibilities within the business unit
- develop and implement stress management strategies
- identify and access rural networks and support groups
- implement strategies to resolve problems.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant legislation
- the organisation's structure
- organisational policies, plans and procedures
- principles of effective consultation and communication
- principles and techniques to use feedback to achieve positive outcomes
- rural networks and support groups
- stressors in the rural business environment and stress management.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS510 Manage finance, insurance and legal requirements

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage finance, insurance and legal requirements.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes and in consultation with the management team.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Manage the legal requirements of the	1.1 Identify, implement and monitor legislative requirements to meet compliance requirements

Element	Performance criteria
business	1.2 Identify where expert legal advice is required to ensure compliance 1.3 Identify, maintain and store legal documents 1.4 Review legislative requirements regularly
2. Process and maintain the insurance requirements for the business	2.1 Identify insurable items of the business 2.2 Conduct a risk assessment to determine the likely consequences of adverse risk outcomes 2.3 Identify suitable insurers or brokers and obtain quotations on price and premium payment options 2.4 Conduct a cost/benefit analysis to determine the effectiveness of insurance 2.5 Identify and evaluate the potential for under- or over-insurance 2.6 Acquire adequate insurance policies and cover 2.7 Review legislative requirements and insurance cover 2.8 File documents to ensure security and accessibility
3. Identify sources, types and cost of finance	3.1 Conduct research on the types of finance for primary production-based businesses 3.2 Determine costs associated with different forms of finance 3.3 Identify the opportunity cost of utilising internal funding sources instead of external sources 3.4 Assess the advantages and disadvantages of each form of finance 3.5 Assess repayment structures for finance options 3.6 Assess the taxation implications of finance options
4. Prepare application for finance or investment	4.1 Access business and financial data and prepare an application for finance or investment 4.2 Check the finance application for accuracy and submit it to the relevant body 4.3 Maintain and store documentation
5. Manage finance repayments	5.1 Develop a budget for the business to demonstrate repayment and interest commitments can be met 5.2 Establish contingencies to ensure finance costs are met when cashflow is restricted

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS510 Manage finance, insurance and legal requirements

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret financial reports and business data
- maintain basic accounts
- administer the legal requirements of the business
- obtain professional advice
- process and maintain the insurance requirements for the business
- identify sources, types and cost of finance
- prepare an application for finance or investment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- business processes and legal requirements
- insurance processes and legal requirements
- risk assessment processes
- cost/benefit analysis processes
- opportunity cost calculation
- finance processes and legal requirements
- taxation and account keeping requirements.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS601 Manage capital works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage the planning and construction of capital works.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify scope of capital works	1.1 Determine the scope of the proposed capital works 1.2 Develop a strategy to achieve objectives, outcomes and client requirements for the capital works 1.3 Develop an effective risk management system to ensure objectives can be met within the enterprises allocated budget
2. Acquire resources	2.1 Identify, acquire and allocate resources, equipment and infrastructure 2.2 Analyse scope and objectives of works to determine the tasks to achieve agreed outcomes on time and within budget 2.3 Develop and apply processes for monitoring, evaluating and reporting performance against objectives 2.4 Identify and agree roles and responsibilities of team members and stakeholders
3. Manage construction activities	3.1 Implement tasks in accordance with plans and specifications 3.2 Establish communication process including responsibilities for conflict resolution 3.3 Monitor progress to ensure time, performance, cost and quality of works is achieved 3.4 Investigate and negotiate proposed variations in consultation with stakeholders
4. Complete capital works and evaluate and report on activities	4.1 Undertake site inspections to ensure all outcomes are met 4.2 Undertake evaluation of completed project against agreed objectives and report to stakeholders

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS601A Manage capital works.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS601 Manage capital works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- negotiate with contractors and suppliers, and internal and external clients
- develop a strategy to achieve project outcomes and client requirements
- monitor, evaluate and report on progress of works
- resolve disagreements and disputes satisfactorily
- analyse project outcomes
- evaluate project achievements.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- human resource management and policies
- capital works specifications and objectives
- project management systems
- project management tools and techniques
- cost schedule control systems
- enterprise procurement guidelines
- enterprise project management policies
- risk management techniques
- business and commercial issues
- basics of contract law
- physical resource management.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS602 Review land management plans and strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to review and assess effectiveness of land use and management plans and strategies.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Determine mechanisms and criteria for reviewing land use and management plans and strategies	1.1 Clearly establish reasons for reviewing land use and management plans and strategies 1.2 Carry out analysis of data to recognise internal policy and procedural influences impacting on land use and management plans and strategies 1.3 Interpret trends to identify changes occurring in the land use and management plans and strategies beyond normal variations 1.4 Regularly review industry information to establish the need for reviewing land use and management plans and strategies within the organisation 1.5 Determine realistic timeframes for review process
2. Analyse existing land use and management plans and strategies	2.1 Assess trends and threats against the objectives of the land use and management plans and strategies 2.2 Identify and assess existing land use and management plans and strategies relevant to the issue under consideration for their effectiveness, relevance, and impact on resource management 2.3 Identify and prioritise gaps in land use and management plans and strategies 2.4 Analyse land use and management plans and strategies, taking account of the relevant historical, social, cultural, political, ecological, biodiversity and economic contexts in which they apply 2.5 Fully inform persons contributing to review of land use and management plans and strategies, regarding relevant enterprise requirements 2.6 Undertake consultation with stakeholders to ensure support for implementation of adjusted land use and management plans and strategies 2.7 Clearly identify and resolve problems taking into consideration the views of stakeholders
3. Modify land use and management plans and strategies	3.1 Evaluate feedback from employees on existing land use and management plans and strategies 3.2 Prepare modified land use and management plans and strategies covering required aspects and using clear and concise language in a standardised format 3.3 Develop modified land use and management plans and strategies that are consistent with business plan and identified needs 3.4 Instruct and train staff in changes to land use and management strategies and monitoring recording processes 3.5 Submit proposed changes to land use and management plans and strategies for approval according to enterprise procedures 3.6 Incorporate outcomes of the consultative process in amended land

Element	Performance criteria
	use and management plans and strategies, and seek agreement from stakeholders where appropriate 3.7 Ensure modified land use and management plans and strategies comply with relevant legislation
4. Implement modified land use and management plans and strategies	4.1 Modify operational processes to obtain additional key data and monitor changes to conservation strategies and plans 4.2 Provide education and training to employees to ensure effective implementation 4.3 Provide education and training to stakeholders to promote implementation 4.4 Implement modifications in a timely manner to reflect the need for changes confirmed through the review process

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS602A Review land management plans and strategies.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS602 Review land management plans and strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine mechanisms and criteria for reviewing management plans and strategies
- analyse existing management plans and strategies
- modify management plans and strategies
- implement modified management plans and strategies
- support stakeholders and staff to implement modifications.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- ecosystems including the interrelationship of geophysical, hydrological, biological and meteorological factors
- biodiversity
- knowledge of the monitoring parameters and techniques utilised in biological monitoring
- threats, both natural and from human activity, to places of natural significance
- international, national and local standards and codes of practice for land management
- land management assessment and monitoring processes
- land degradation and pollution
- scientific processes for evaluating land management
- general understanding of range of cultural issues
- legislation under which enterprise operates.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS603 Develop and review a strategic plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and review a strategic plan.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Clarify business goals and direction	1.1 Evaluate the focus, direction and structure of the enterprise in the development and review of the strategic plan 1.2 Assess and identify need for development and change 1.3 Identify competitive and collaborative factors 1.4 Identify and consider legal obligations and estate considerations 1.5 Develop goals and targets consistent with the enterprise
2. Undertake strategic analysis	2.1 Access data for use in review and development 2.2 Assess opportunities to value-add in the distribution chain of commodities and identify competitive implications 2.3 Analyse and assess competitive and collaborative opportunities 2.4 Assess expansion opportunities for viability and feasibility 2.5 Undertake comprehensive analysis of data and information to formulate a viable and realistic strategic plan
3. Develop and document strategic plan	3.1 Ensure performance measures are clear and address all key aspects of enterprise performance 3.2 Identify, document and incorporate the implications of the strategic plan for the enterprise 3.3 Introduce value adding activities and opportunities 3.4 Communicate strategic plan initiatives and desired outcomes 3.5 Evaluate strategic performance for gaps and strengths and implement appropriate remedial action

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS603A Develop and review a strategic plan.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS603 Develop and review a strategic plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine the scope and desired business outcomes of the strategic plan
- analyse the competitive environment
- document performance measures to address all key aspects of enterprise performance
- evaluate opportunities and the viability and feasibility of the production, business and marketing plans
- document, monitor and review the strategic plan
- set the goals and direction for the business
- communicate strategic direction.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the external environment
- market forces
- resource availability and accessibility
- feasible enterprises and opportunities
- business structures
- business analysis and forecasting
- value adding concepts
- strategic planning methodologies
- data collection and analysis methods
- risk management techniques
- legislation and by-laws relevant to the organisations operation and potential expansion
- organisational design and change processes.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS604 Design and manage the enterprise quality management system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design and manage an agricultural or horticultural enterprise quality management system.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Compare enterprise systems and processes with industry benchmarks	1.1 Obtain industry benchmarks for best practice 1.2 Examine production performance using comparative analysis techniques 1.3 Implement relevant codes of practice 1.4 Audit business systems against best practice criteria 1.5 Analyse marketing plans and evaluate Quality Assurance (QA) schemes 1.6 Audit human resources management practices against best practice criteria 1.7 Assess environmental and natural resources parameters against best practice
2. Identify areas for improvement within the enterprise	2.1 Establish targets and performance indicators 2.2 Implement systematic strategic planning 2.3 Embed an ethos for producing quality products in the enterprise culture 2.4 Define quality standards for products, physical and natural resources, and inputs 2.5 Establish targets and performance indicators 2.6 Establish commitment to knowledge and learning 2.7 Implement effective communication strategies
3. Undertake continuous monitoring of systems and processes	3.1 Implement mechanisms for gaining feedback 3.2 Review performance against targets and performance indicators in an appropriate evaluation cycle 3.3 Design reporting and documenting procedures 3.4 Implement improvements to systems and processes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS604A Design and manage the enterprise quality management system.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS604 Design and manage the enterprise quality management system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- compare enterprise systems and processes with industry benchmarks
- analyse systems and strategies against best practice
- identify areas for improvement within the enterprise
- document procedures to mitigate risks to quality and address areas for improvement
- undertake continuous monitoring of systems and processes.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Quality Management (QM) objectives
- leadership strategies to establish QM business culture
- analysis skills related to the product market, Quality Assurance programs
- performance measurement
- benchmarking strategies for analysing production and financial performance
- environmental standards and monitoring processes
- codes of practice
- strategic planning processes
- scanning techniques for strengths, weaknesses, opportunities and threats
- techniques and formats for establishing measurable performance targets
- recording and reporting systems
- human resource management and training practices/systems related to continuous improvement standards.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS605 Manage human resources

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage human resources in an agricultural, horticultural or land management enterprise.

All work must be carried out to comply with organisational requirements, Work Health and Safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Implement strategies for personal development and appropriate self-management	1.1 Audit own management strengths and weaknesses and address through training and professional support 1.2 Determine priorities in management and operations and allocate time to achieve effective outcomes 1.3 Implement strategies for managing conflicting demands and pressure
2. Identify skill requirements and prepare task descriptions	2.1 Identify and describe tasks along with the range of conditions under which performance may need to occur 2.2 Determine most appropriate employment arrangements based on employer and employee needs, responsibilities and rights 2.3 Prepare task descriptions with due regard to Equal Opportunity Employment Legislation, work health and safety and work based harassment regulations 2.4 Explore and use opportunities to use government-supported employment and training programs
3. Arrange employment of workforce members	3.1 Assess options for filling job vacancies 3.2 Prepare resources and materials for recruitment and place with media and employment agencies 3.3 Determine criteria for assessing job applicants and prepare applicant evaluation processes and procedures 3.4 Assess applicants against the criteria and finalise selection decision 3.5 Advise all applicants 3.6 Negotiate terms of employment to ensure adherence to relevant award conditions
4. Manage workforce performance	4.1 Design induction programs for each employee consistent with legislative requirements and effective management 4.2 Establish terms of engagement for consultants and contractors 4.3 Conduct induction programs for new internal and external appointees and establish appropriate records 4.4 Develop work plans with all members of the workforce 4.5 Design and implement strategies for communicating with workers 4.6 Design and implement performance management strategies 4.7 Follow processes for terminating non-performing staff
5. Support personal development, training and career development of workers	5.1 Design and implement strategies to identify skill and knowledge gaps with workers 5.2 Provide on-job training to optimise worker performance and to ensure safety and fairness in the workplace 5.3 Identify off-job training requirements and source and support training

Element	Performance criteria
	5.4 Identify and provide opportunities for career development and design and implement strategies for succession 5.5 Recognise and reward prior learning, experience and training
6. Manage administrative support	6.1 Design and implement processes and procedures for the administration of staff records 6.2 Design and implement administrative procedures and processes to meet legislated requirements 6.3 Monitor adherence to awards, enterprise agreements and contracts of employment, and resolve disputes and conflicts
7. Implement work health and safety priorities and procedures	7.1 Develop and communicate safety policies 7.2 Identify and design safe work practices for all aspects of the operation of the enterprise 7.3 Communicate and enforce safe work practices among all members of the workforce
8. Review labour productivity	8.1 Establish strategies for monitoring labour costs 8.2 Review the performance of the enterprise using labour productivity benchmarks 8.3 Establish opportunities to develop more efficient work practices by consulting peers, staff and consultants 8.4 Implement strategies for improving labour productivity

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS605A Manage human resources.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS605 Manage human resources

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- implement strategies for personal development and appropriate self-management
- identify skill requirements and prepare task descriptions
- arrange employment of workforce members
- support career and professional development of workforce members
- implement work health and safety priorities and procedures
- manage administration of staff records
- review labour productivity.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- personal development
- time management
- task descriptions and person specifications
- equal opportunity and Equal Employment Opportunity legislation
- work health and safety legislation
- relevant industrial awards
- employee induction programs
- interviewing strategies and protocols
- works compensation instance and superannuation
- contracts of employment
- unfair dismissal legislation.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS606 Develop a monitoring, evaluation and reporting program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a monitoring, evaluation and reporting program.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Define terms of reference and evaluation context	1.1 Identify and clarify the preferred outcomes, who will use the information and for what purpose 1.2 Identify the key stakeholders who will be consulted 1.3 Select evaluation and monitoring methods which are suitable to the size and significance of the program, and the terms of reference 1.4 Complete a review of existing evidence and literature relevant to the proposed evaluation 1.5 Develop an evaluation methodology that supports broader management targets, Natural Resource Management (NRM) standards, targets and outputs
2. Identify the key stages and outcomes of the program	2.1 Define key stages, milestones and timeframe 2.2 Communicate the details of the program and delivery timeline for endorsement with clients and stakeholders 2.3 Identify potential risks which may impact on the proposed program 2.4 Refine targets and objectives as required
3. Define reporting and record keeping requirements for data management	3.1 Identify data collection, management and reporting requirements to meet the objectives of the program 3.2 Identify existing data sets that may be accessed for the program 3.3 Design data collection protocols so relevant standards and required formats are met 3.4 Identify how data will be stored to ensure security and appropriate access taking into account required formats 3.5 Identify the information products required taking into account clients and stakeholders needs and use in decision making 3.6 Produce reports to suit program audience types
4. Identify the resources needed to implement the program	4.1 Identify the personnel and skills sets required to implement the monitoring and evaluation program 4.2 Assess the material resources required to undertake the work 4.3 Determine the cost of the program and develop a budget

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS606A Develop a monitoring, evaluation and reporting program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS606 Develop a monitoring, evaluation and reporting program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- define terms of reference and context
- identify key stages and outcomes
- assess and define data management requirements
- identify the resources needed to undertake the program
- scope a project
- collect and manage data
- manage and design projects
- produce reports for management.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- program design considerations (cost, equality, technically valid, ethics)
- sources of information on business monitoring and evaluation
- secure data storage
- data analysis processes
- quantitative and qualitative data collection methods for monitoring and evaluation
- data management.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS607 Implement a monitoring, evaluation and reporting program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a monitoring, evaluation and reporting program.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

This unit applies to individuals who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Implement a monitoring and evaluation strategy	1.1 Collect relevant baseline data 1.2 Consult with stakeholders and the community 1.3 Brief colleagues, staff and contractors who will be involved in implementing the program on the monitoring and evaluation methods selected and justification 1.4 Implement chosen monitoring and evaluation methods in accordance with defined strategy 1.5 Ensure standard procedures and recording templates are available for use 1.6 Ensure program timelines are communicated and monitored 1.7 Monitor program expenditure and compare with budget
2. Collect and analyse data	2.1 Ensure data and information is collected following relevant standards and format 2.2 Assess if further data or information is needed to answer key evaluation questions and adjust design as required 2.3 Ensure data is appropriately stored and can be accessed as needed 2.4 Facilitate colleagues and contractors involved in the monitoring and evaluation process 2.5 Evaluate the effectiveness, efficiency and appropriateness of investment and project priorities as required by the evaluation design
3. Prepare reports and provide information	3.1 Report against milestones and outputs 3.2 Produce appropriate information products to keep stakeholders informed and engaged 3.3 Communicate findings and activities to stakeholder groups according to program schedule 3.4 Negotiate changes to projects and programs with stakeholders 3.5 Apply findings to improve the delivery and alignment of projects and policy decisions with organisational targets and mission 3.6 Ensure the style of reporting reflects the audience and how the information is to be used
4. Review the monitoring and evaluation process	4.1 Foster a culture of self-evaluation and learning through encouraging ongoing participation, consultation and communication with stakeholders 4.2 Review and adapt ongoing evaluation strategy and processes and provide feedback on the implementation and the evaluation design

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS607A Implement a monitoring, evaluation and reporting program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS607 Implement a monitoring, evaluation and reporting program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- implement a monitoring and evaluation strategy
- collect and manage data
- analyse complex information
- prepare reports and supply information
- review the evaluation process.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- quantitative and qualitative methods for monitoring and evaluation
- data management processes and systems
- policy and program management processes
- adaptive management and review cycles.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCBUS608 Manage risk

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage risks in a range of contexts.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

The unit has been designed to be consistent with the applicable Australian Standard.

This unit applies to individuals who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They must analyse information and exercise judgement to complete a range of advanced skilled activities. They must analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Business (BUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish risk context	1.1 Review organisational processes, procedures and requirements for undertaking risk management 1.2 Determine scope for risk management process 1.3 Identify internal and external stakeholders and their issues 1.4 Review political, economic, social, legal, technological and policy context 1.5 Review strengths and weaknesses of existing arrangements 1.6 Document critical success factors, goals or objectives for area included in scope 1.7 Obtain support for risk management activities 1.8 Communicate with relevant parties about the risk management process and invite participation
2. Identify risks	2.1 Invite relevant parties to assist in the identification of risks 2.2 Research risks that may apply to scope 2.3 Use tools and techniques to generate a list of risks that apply to the scope, in consultation with relevant parties
3. Analyse risks	3.1 Assess likelihood of risks occurring 3.2 Assess impact or consequence if risks occur 3.3 Evaluate and prioritise risks for treatment
4. Select and implement treatments	4.1 Determine and select most appropriate options for treating risks 4.2 Develop an action plan for implementing risk treatment 4.3 Communicate risk management processes to relevant parties 4.4 Ensure all documentation is in order and appropriately stored 4.5 Implement and monitor action plan 4.6 Evaluate risk management process

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS608A Manage risk.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBUS608 Manage risk

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine the scope for risk management
- identify potential risks associated with climate, resource (natural, physical, financial and human) availability and capacity, enterprise production systems, theft and vandalism of assets, scientific and technological development, marketing, and external political and social factors
- implement strategies to minimise the impact of risk.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the wide range of risks faced by a primary production business
- legislation, codes of practice and national standards, including:
 - duty of care
 - company law
 - contract law
 - environmental law
 - freedom of information
 - industrial relations law
 - privacy and confidentiality
- legislation relevant to organisation's operations
- legislation relevant to equal opportunity
- legislation relevant to operation as a business entity
- organisational policies and procedures, including:
 - risk management strategy
 - policies and procedures for risk management

- overall operations of organisation
- risk insurance and insurance providers.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF401 Prepare project acquittal

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to review project documentation and prepare an acquittal statement for approval and auditing.

It applies to community program managers who have to prepare project acquittal statements. This includes taking responsibility for own work and providing and communicating solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish acquittal records	1.1 Review program or project plans, guidelines or contracts and financial reporting requirements 1.2 Collect financial information for acquittal report 1.3 Establish records of materials, equipment and labour provided before start of project for acquittal report

Element	Performance criteria
2. Identify transactions and reports relating to project	2.1 Identify project-related accounting transactions and reports in group accounts for use in acquittal 2.2 Determine need for separate statements based on different funding sources 2.3 Estimate financial values of in-kind donations of materials, loan of equipment and labour
3. Prepare acquittal in required format	3.1 Prepare acquittal from accounting and other information to program and contract requirements 3.2 Report program funds and expenditure on operations separately from group contributions to project 3.3 Report group contributions to project to contract requirements 3.4 Consolidate report for approval and auditing
4. Arrange audit of acquittal and transaction	4.1 Arrange audit of report to program and contract requirements 4.2 Arrange approval of report to group, program and contract requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF401A Prepare project acquittal.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF401 Prepare project acquittal

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collate budgeted resources and inputs to project from planning document
- access accounts and develop a list of transactions related to the project
- prepare the project acquittal for reporting and auditing to program or funding body requirements
- arrange for an audit of the acquittal, the final report and the full list of transactions.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- program objectives and guidelines
- agency procedures for preparing project acquittals
- basic financial reporting formats and procedures
- project acquittal reporting requirements.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF402 Report on project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to review a project and prepare a report to meet organisational and funder requirements.

It applies to those who prepare reports for community projects such as Landcare or similar for future group and program reference. It includes taking responsibility for own work and providing and communicating solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify project processes and outcomes	1.1 Identify scope of report and target audience from contract, program guidelines, agency procedures and committee decisions 1.2 Research background to project from available records 1.3 Collate information from project records and information

Element	Performance criteria
	provided
2. Prepare report	2.1 Prepare framework and format of report to required scope, target audience and guidelines 2.2 Prepare project report from researched information 2.3 Prepare conclusions in consultation with personnel 2.4 Circulate draft report to stakeholders for comment
3. Revise report for distribution	3.1 Revise draft report to address comments from consultation 3.2 Submit any unresolved issues to committee for decisions 3.3 Obtain approval for revised report in accordance with contract, group and agency requirements 3.4 Complete project reporting requirements within approved timeframes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF402A Report on project.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF402 Report on project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collate the documentation for the background and aims, budget, timelines, and resources allocated for the project
- prepare a report format that complies with organisational and funding organisation's requirements
- apply drafting and editing techniques in report writing
- implement consultation processes to determine report conclusions
- respond to feedback on draft report and finalise the version to be published and distributed
- develop project reports to organisational and funding organisation's standards
- finalise report within approved timeframe.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- program objectives and guidelines
- project report formats
- contractual requirements for reporting
- project background, processes and outcomes
- agency procedures for drafting, consultation and finalising project reports.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF403 Obtain and manage sponsorship

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to obtain program sponsorship and manage sponsorship commitments.

It applies to those who plan and obtain sponsorship for a community program such as Landcare. It includes taking responsibility for own work and providing and communicating solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify sponsorship opportunities	1.1 Target appropriate partners to the program as potential sponsors 1.2 Develop a rationale for sponsoring the program or activities which achieves a balance between the sponsors' requirements and the program goals, and benefits to the sponsor and program 1.3 Confirm feasibility of sponsorship opportunities through research

Element	Performance criteria
	and analysis 1.4 Itemise mutual benefits and develop list of targets 1.5 Consider community, cultural and equity requirements in the group operations in developing list of target sponsor companies
2. Prepare and deliver sponsorship pitch	2.1 Make contact with potential sponsor 2.2 Maintain the best interests of the program, group and agency in sponsorship approach 2.3 Prepare presentation support materials with appropriate accuracy, style and degree of information 2.4 Ensure presentation and approach demonstrates an understanding of and respect for sponsors' business and shows how sponsorship will be mutually beneficial 2.5 Include outcomes of any prior sponsorship arrangements in pitch and negotiations 2.6 Follow up presentation in a manner that preserves the integrity of the negotiations
3. Successfully negotiate sponsorship deal	3.1 Agree on terms which satisfy both the sponsor and the program and the associated agency 3.2 Express nature of sponsorship and the benefits to the sponsor in explicit terms, ensuring they are understood by both parties 3.3 Identify commitments under the sponsorship arrangements to assist maintenance of relationship 3.4 Prepare a sponsorship agreement, contract or memorandum of understanding in accordance with enterprise, sponsor and legal requirements
4. Maintain sponsorship deal	4.1 Meet legal, financial, cultural, ethical, equity and other requirements throughout the sponsorship period 4.2 Meet commitments under the sponsorship arrangements promptly and deliver benefits to the sponsor as agreed 4.3 Recognise the support of sponsor for program or project in literature, reports and on-site 4.4 Identify timing for the start of discussions to extend or complete the sponsorship

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF403A Obtain and manage sponsorship.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF403 Obtain and manage sponsorship

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify sponsorship opportunities with companies that have common values to the program
- identify the mutual benefits the sponsorship arrangement could provide to both organisations
- develop and present a sponsorship pitch that creates a professional and honest image
- negotiate an appropriate sponsorship arrangement to support a project
- document a sponsorship arrangement, detailing all agreements and responsibilities
- meet legal, financial, cultural, ethical, equity and other requirements for the duration of the sponsorship arrangement
- review a sponsorship arrangement and plan its renegotiation.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- strategy, goals, ethics, program and activities of community group or agency
- effective marketing techniques
- acts, policies and guidelines governing programs and activities
- sources of legal and financial advice
- operation of contracts and agreements.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF404 Contribute to association governance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor association activities and contribute to association governance.

It applies to individuals who take responsibility for others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor association activities	1.1 Monitor activities undertaken by group to ensure: <ul style="list-style-type: none"> • association objectives are being adhered to • resolutions of meetings are being followed • finances are properly managed • employees are managed and volunteers are appropriately supervised • legislative requirements are being met

Element	Performance criteria
	<ul style="list-style-type: none"> • ethical requirements are being met • group operations and approaches are sensitive to and inclusive of community and sections within the community 1.2 Note variations from expected standards and take immediate routine action
2. Identify opportunities, threats and risks	2.1 Identify and recommend opportunities for the group to commence new projects or activities to the committee 2.2 Identify and raise threats to the ongoing operation of the group at committee meetings 2.3 Identify risks associated with the group's activities and ongoing operation 2.4 Submit risks and proposed risk control measures to the committee
3. Participate in board/committee meeting	3.1 Review agendas before meetings 3.2 Submit agenda items and reports as required 3.3 Attend meetings and discuss issues on the agenda 3.4 Establish and maintain communications with other members to ensure competent management of group affairs 3.5 Raise personal observations and concerns at committee meetings including opportunities, threats and risks 3.6 Take actions and report on commitments made at meeting

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF404A Contribute to association governance.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF404 Contribute to association governance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- contribute to association governance
- monitor association governance by reviewing or monitoring meeting procedures, finances, staff management, legislative compliance, ethical conduct and community consultation
- conduct a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis for the association's operations
- participate in board or committee meetings.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- requirements of relevant legislation
- interpretation of basic financial statements
- aims and activities of programs
- committee meeting and members' meeting procedures
- objectives and rules of association
- basic management practice including practices
- community goals and plans
- corporate governance legislation and codes of practice.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF405 Develop community networks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to liaise with stakeholders in a community and develop community networks.

It applies to those who develop relationships that support the establishment and development of a community group and provide support from within the community for the group.

This unit applies to individuals who take responsibility for others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Make contacts within community	1.1 Make connections through business, social and personal contacts and programs to the community

Element	Performance criteria
	1.2 Identify connections for their potential in regard to a community group program or activity 1.3 Formulate plans for developing relationships together with relevant community members and leaders 1.4 Respect equity requirements and cultural backgrounds of people being contacted 1.5 Observe cultural protocols to establish positive contacts 1.6 Follow appropriate mechanisms to establish contacts with Indigenous communities 1.7 Address community requests for information on or participation in programs or activities to promote the community group and program
2. Form and create links	2.1 Develop contact through promotional activities, programs and activities of mutual interest to community members and other groups 2.2 Structure activities, programs and personal contact to allow trust and understanding to develop within the group and community 2.3 Develop working relationships in areas of common interest and goals to bring benefit to all parties 2.4 Seek feedback on programs and community group activities from participants and community and use to modify their application 2.5 Develop appropriate records to maintain ongoing contracts and relationships
3. Build networks	3.1 Use individual contacts and contacts with other groups to establish networks of common interest 3.2 Review programs and activities to incorporate networks and the network resources in areas of common interest and goals 3.3 Evaluate progress in establishing links and networks and identify opportunities for further action 3.4 Manage relationships and networks to ensure compliance with cultural protocols and agency procedures and guidelines
4. Report on community liaison	4.1 Evaluate community liaison activities in terms of their costs, benefits to the group program and contribution to the community 4.2 Prepare and submit reports on community liaison activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF405A Develop community networks

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF405 Develop community networks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop community networks
- investigate equity requirements and cultural protocols for dealing with community groups
- establish networks of common interests through individual contacts and contacts with other groups
- promote program goals and issues to community groups through networking
- make presentations to diverse groups of people
- communicate with people using appropriate language and style.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- community structures, organisations and cultures
- relevant government community action programs
- process of delivery of programs
- current social and environmental affairs for local community and wider region
- need for the establishment of a community group
- group goals.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF406 Facilitate ongoing group development

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to facilitate ongoing group development.

It applies to those who support a community Landcare group or similar, in its ongoing management and resolution of issues.

This unit applies to individuals who take responsibility for others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Maintain contact on group activities	1.1 Maintain contact with group on current and proposed activities and projects

Element	Performance criteria
	1.2 Provide advice on group operation and opportunities when sought 1.3 Define role of coordinator in group operations with the management committee to avoid misunderstanding
2. Provide fresh input into group	2.1 Identify relevant new initiatives and ideas from other groups and program areas 2.2 Seek new initiatives and ideas from appropriate sources 2.3 Develop any suggestions to include local group and program context
3. Maintain network of contacts	3.1 Maintain contacts with members of the group and community to provide interchange of ideas and information
4. Facilitate resolution of group operating difficulties	4.1 Identify issues with potential to hinder operations before damage occurs to the group 4.2 Assess external threats and facilitate negotiation of solutions between the group and external parties 4.3 Resolve internal conflict through facilitation and use of relevant expert advice 4.4 Implement change management processes for groups requiring major restructuring

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF406A Facilitate ongoing group development.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF406 Facilitate ongoing group development

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- maintain contact with group to facilitate community networking
- share ideas between groups to foster initiative and innovation
- identify sources of conflict and issues that detract from the effective and equitable functioning of a group
- resolve group conflict and refer group issues for specialist advice if required
- use a range of facilitation strategies to work with groups.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- group development and facilitation techniques
- program guidelines, purpose and aims
- general understanding of natural resource management, sciences and technologies associated with program
- committee and group procedures.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF407 Obtain resources from community and groups

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to obtain resources from community and groups and coordinate the use of resources in projects.

It applies to those who source resources from within the community and group to support Landcare or similar group activities and projects.

This unit applies to individuals who take responsibility for others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify potential resources	1.1 Determine resources required to carry out a project, function or activity

Element	Performance criteria
	1.2 Identify potential resources in the group, community and agency to match project requirements as documented in plan 1.3 Identify likely conditions under which alternative resources would be sourced in order to determine suitable sources and conditions of supply
2. Seek commitment of resources	2.1 Approach owners of resources to discuss resource availability and conditions of availability 2.2 Review costs of alternative arrangements in context of the budget to determine which arrangements can be accepted or renegotiated 2.3 Make arrangements with resource owners to access resources within overall project plan and budget 2.4 Ensure approach and relationship with resource owners caters for range of viewpoints to ensure a positive image of program is maintained
3. Coordinate use of resources	3.1 Coordinate provision of resources to suit project plan and any changes in timing and availability of complementary resources 3.2 Record use of resources to program and project requirements 3.3 Acknowledge contributors of resources in project documentation or reports

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF407A Obtain resources from community and groups.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF407 Obtain resources from community and groups

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a list of resources required to carry out a project or function
- identify resources that may be able to be donated, purchased or borrowed from community
- apply for access to resources from community with details of proposed use and justification
- negotiate use of resources in a way that maintains community support
- document the use of resources as part of project management and to allow acknowledgement of community contribution.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- project resource requirements
- task analysis, including hazard and risk analysis
- network of resources in the community
- program guidelines
- details of contracts for resource access.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF408 Promote community programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to promote community programs to target markets with a view to encouraging participation.

It applies to individuals who work in known and changing contexts, take responsibility for own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF).

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify target markets	1.1 Identify potential of program to appeal to sections of community or industry in terms of benefits and costs 1.2 Identify sectors of community and industry that are potential users, customers and audiences of program 1.3 Develop a plan to promote program or local projects or group

Element	Performance criteria
	activities with other communication activities
2. Develop promotional materials	2.1 Determine range of promotional channels to reach target sectors 2.2 Source or develop promotional materials to suit promotional channels and target sectors 2.3 Test impact of promotional materials with group or community members 2.4 Obtain specialist marketing support to address specific marketing issues within budget and program and agency guidelines
3. Promote program to potential users	3.1 Approach potential users of program and services through promotional channels and directly 3.2 Assess impact of promotional activities to determine changes required 3.3 Adjust promotional plan and activities to achieve an improved impact
4. Obtain commitment to use program services	4.1 Present proposals for delivery of program services to interested potential users in terms of benefits, costs and other factors 4.2 Address issues raised by potential users to overcome objections 4.3 Obtain commitments to use program services or support program
5. Respond to enquiries	5.1 Address enquiries by members of community, industry and program in terms of good customer service 5.2 Keep records of contacts, enquiries and presentations for reporting and follow-up 5.3 Follow up enquiries and presentations to obtain commitments to program services and objectives

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF408A Promote community programs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF408 Promote community programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify the potential of a program to appeal to sections of community or industry based on benefits and costs
- determine communication channels appropriate for promotion
- deliver presentations in a range of direct promotional situations to appropriate persons in organisation or group
- develop audio, written and graphic materials promotional materials appropriate to the program and in line with organisational requirements and standards
- respond to queries and enquiries generated by the promotion program.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- program services, objectives, goals and guidelines
- basic marketing principles
- local advertising channels
- local or regional community and industries that could be potential users of, customers and audiences of the program
- organisational policies and procedures for promoting programs and groups.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF409 Participate in assessments of project submissions

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to review and assess project submissions against applicable guidelines.

It applies to those who participate in the submission assessment process at regional and State or Territory levels for publicly funded community programs. This unit includes communicating solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research the applicable program guidelines	1.1 Review policy and program information required to participate in the assessment of projects within a region or State/Territory 1.2 Identify own role and responsibilities within applicable program guidelines and legislative requirements 1.3 Build own knowledge of policy and program information and

Element	Performance criteria
	legislative requirements to understand program aims and goals 1.4 Identify changes in policy and program information for impact on assessment processes
2. Review submissions	2.1 Review project submissions in the context of policy and program information before the assessment committee meeting 2.2 Complete personal review and ranking of projects for the assessment committee meeting
3. Participate in committee assessment process	3.1 Identify projects which meet program guidelines 3.2 Identify and review submissions seeking further funding for existing projects under separate criteria 3.3 Give assessments of projects a balanced consideration to ensure equity and fairness in the process 3.4 Review and rank projects in terms of the priorities and other factors defined in the program guidelines 3.5 Use active listening approaches and appropriate questioning techniques to develop an understanding and a team approach 3.6 Select projects for recommendation
4. Maintain integrity of assessment	4.1 Maintain confidentiality requirements of the assessment process 4.2 Follow ethical and legislative standards and procedures in the assessment process

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF409A Participate in assessments of project submissions.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF409 Participate in assessments of project submissions

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- contribute to committee assessment processes for project submissions
- participate in committee meetings according to meeting rules and processes
- rank competing projects based on suitability to policies and program requirements
- interpret and follow organisational policies and program information and legislative requirements
- apply procedures to maintain confidentiality requirements of assessment processes
- conduct assessments according to ethical and legislative standards and procedures.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- policy and program information, including purpose, values and goals
- scope of programs
- legislative and program guidelines at appropriate local, regional and State levels
- project assessment processes
- program integrity requirements
- funding program principles, guidelines and eligibility requirements.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF410 Support individuals in resource management change processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide support and information in resource management change processes.

It applies to those who support individuals or businesses to change their management of resources within the context of the program.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify change	1.1 Identify changes that will affect business operations and personal

Element	Performance criteria
processes	lives 1.2 Assess the extent of impact that resource management changes will have on businesses and personal lives
2. Conceptualise impact of changes	2.1 Start discussions with individuals and families regarding their life-style, values and views on resource management and program issues to identify potential for change 2.2 Identify difficulties or issues individuals and families may have implementing change in their business and personal lives 2.3 Identify appropriate information and support approaches
3. Implement support techniques	3.1 Obtain and provide information to support individuals and families facing or considering change 3.2 Give individuals and families encouragement and support as they consider and implement change 3.3 Provide support and information in a culturally sensitive and equitable manner 3.4 Provide people with avenues of assistance where this will help in their management of change
4. Review support outcomes	4.1 Assess results of support provided in terms of resources spent, change achieved and potential for further change 4.2 Change support approach in light of results

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF410A Support individuals in resource management change processes.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF410 Support individuals in resource management change processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess the resource management change and its potential impact on individuals and affected families and businesses
- predict issues that are likely to arise from change, based on community feedback and statistical information
- provide information and support to individuals facing resource management changes in a sensitive manner
- review the methodology and effectiveness of support to improve support services for resource management change.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- local natural resource management issues
- relevant approaches to different cultures
- change management principles and practices
- networks of assistance.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF411 Develop approaches to include cultural and human diversity

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop approaches to include cultural and human diversity in land management activities.

It applies to those whose job role includes identifying and accessing culturally diverse groups in the community so that they are included in program development and implementation. A high level of cultural awareness and the need to observe cultural protocols are important parts of the process.

This unit applies to individuals who have limited responsibility for others and undertake problem solving in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify potential for cultural diversity	1.1 Identify the range of cultural diversity using information on the population of the program area 1.2 Identify potential involvement of individuals and groups in the context of the program 1.3 Make adjustments to program and program materials to meet cultural frameworks of different peoples
2. Develop processes to include culturally diverse groups	2.1 Identify and acknowledge cultural protocols to ensure contact with individuals or communities is successful 2.2 Identify key persons needed for influencing relationships 2.3 Formulate plan to develop and maintain contact with culturally diverse groups in line with understanding of cultures, goals of the relationship and relevant organisational requirements 2.4 Ensure processes are inclusive of an equitable involvement of various sections of the community and their perspectives
3. Communicate potential and support for culturally diverse group	3.1 Communicate with individuals and groups of culturally diverse backgrounds to promote their potential involvement in groups and programs according to plan 3.2 Communicate potential of program and group activities in a culturally relevant manner 3.3 Adjust communication according to needs and protocols of different cultural groups 3.4 Facilitate links between culturally diverse individuals and groups to ensure good community relationships and development of the program

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF411A Develop approaches to include cultural and human diversity.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF411 Develop approaches to include cultural and human diversity

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify range of cultural and social groups in land management area
- negotiate and maintain cultural protocols for dealing with people from a range of cultures
- develop working relationships with representatives of cultural groups
- facilitate the involvement of culturally diverse groups in community issues related to land management
- communicate and work with individuals and groups in a culturally sensitive way.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- sources of culturally relevant materials and verbal information
- cultural protocols and perspectives
- relevant legislation and guidelines
- current relationships between culturally diverse groups in the area
- understanding of the role of various sections of the community in historical and relationship terms.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF412 Coordinate board or committee elections

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate board or committee elections for an unincorporated group or incorporated association in accordance with the group/association rules and practice.

This unit applies to community program leaders who coordinate committee or board elections and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Seek nominations	1.1 Identify election requirements under the rules of the organisation or association 1.2 Call for nominations for officers and committee positions that will become vacant

Element	Performance criteria
	1.3 Check nominations are valid and eligible 1.4 Fill positions where there are no nominations
2. Conduct elections	2.1 Declare nominations for uncontested positions filled 2.2 Set election date 2.3 Prepare ballot papers according to the number of nominations 2.4 Manage voting to ensure a fair ballot by persons eligible to vote 2.5 Explain voting process to group 2.6 Assess any voting irregularities for impact on result, with any invalid elections being declared void
3. Promote a positive election atmosphere	3.1 Promote positive attitude of cooperation between candidates 3.2 Address issues and complaints to ensure group satisfaction with the election process 3.3 Facilitate minority interests to ensure equitable representation
4. Declare results	4.1 Count votes using a method that ensures a fair count 4.2 Announce results or provide to the chair 4.3 Complete records of results 4.4 Address grievances

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF412A Coordinate board/committee elections.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF412 Coordinate board or committee elections

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- conduct all election processes according to the rules and practices of the group or organisation
- seek and check nominations
- explain voting process to group and ensure understanding
- prepare and edit ballot papers to organisational requirements and in line with voting process
- conduct elections and monitor voting irregularities
- address complaints and grievances about the election process
- record and declare results

Knowledge Evidence

The candidate must demonstrate knowledge of:

- articles, rules and practice of the group or organisation
- election procedures used by other groups and in other voluntary organisations
- voting method to be used

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF413 Service committees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide support services to committees.

This unit applies to community program leaders who organise meetings for committees and sub-committees at the group and regional levels to support the operation of community groups. These individuals take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Organise meetings	1.1 Clarify purpose of meeting with the chair, secretary or coordinator 1.2 Prepare and maintain schedule of meetings in line with program, group, regional or agency requirements

Element	Performance criteria
	1.3 Organise venue and date of meeting according to meeting schedule, group requirements and within any budget constraints 1.4 Advise participants of any changes to original meeting details 1.5 Advise all appropriate individuals of details of meetings and follow up for confirmation of attendance 1.6 Accept and record any apologies 1.7 Set up meeting room in a timely manner to suit arrangements
2. Prepare business papers for meetings	2.1 Prepare notice of meeting and agenda and provide details 2.2 Prepare reports for meeting 2.3 Distribute business papers to appropriate individuals following established guidelines
3. Record and produce minutes of meeting	3.1 Take notes of meeting activities and decisions to ensure an accurate record of meeting 3.2 Produce minutes of the meeting in required format to provide an accurate account of meeting 3.3 Check minutes for accuracy, get approval and distribute
4. Follow up after meetings	4.1 Prepare action lists on work following from meetings 4.2 Deal with requests for information promptly and accurately 4.3 Deal with correspondence in a timely manner

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF413A Service committees.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF413 Service committees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- organise formal meetings and advise members of details within agreed timeframes
- prepare business papers and additional information for meetings
- take meeting notes to meet enterprise requirements
- carry out follow up actions within agreed timeframes
- prepare minutes according to committee, organisational and legislative requirements
- distribute meeting minutes within agreed timeframes

Knowledge Evidence

The candidate must demonstrate knowledge of:

- meeting procedures, both formal and informal
- agency guidelines or instructions where applicable
- relevant program and incorporation requirements for group where applicable
- local facilities for meetings
- local arrangements for authorising expenditure
- office and related business procedures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF414 Coordinate fundraising activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop fundraising ideas and coordinate fundraising activities.

This unit applies to community program leaders who coordinate fundraising activities for local Landcare community groups or programs. These individuals take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Seek fundraising ideas	1.1 Identify requirements for funds to determine extent of fundraising required 1.2 Identify successful fundraising activities used by this or other groups for further investigation

Element	Performance criteria
	1.3 Compare potential new fundraising activities to existing methods to determine preferred fundraising activities 1.4 Review, with other leaders, potential fundraising ideas to select preferred fundraising activity 1.5 Consider views of individuals in groups in determining preferred fundraising activities
2. Select and develop ideas	2.1 Estimate costs, required resources and potential net income 2.2 Present selected fundraising activities to group to obtain agreement 2.3 Conduct risk assessment of fund raising activities 2.4 Seek any permissions or permits required for undertaking fund raising activities 2.5 Confirm insurance requirements and coverage for fund raising activity
3. Conduct fund raising	3.1 Seek volunteers to manage or support activities in fundraising program and negotiate duties 3.2 Manage budget for fundraising activities 3.3 Organise volunteers into committees or teams 3.4 Ensure fundraising activities comply with public safety, work health and safety and other requirements 3.5 Supervise fundraising activities to ensure optimum return with available resources and to present a positive image of the group 3.6 Ensure security of money collected 3.7 Check activity sites to ensure they are tidy 3.8 Record results from fundraising activities
4. Review results	4.1 Calculate the results of the fundraising 4.2 Evaluate the fundraising activity 4.3 Coordinate discussion on relative value of fundraising activities and potential suitability for future 4.4 Report results and evaluation to management committee with recommendations or lessons for future activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF414A Coordinate fund-raising activities.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF414 Coordinate fundraising activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- coordinate fundraising activities according to enterprise and legal requirements
- develop fundraising ideas that are appropriate to the group or program goals and values
- present ideas for fundraising at meetings according to meeting protocols
- approach and enlist support of volunteers
- coordinate committees or teams and the sites and resources required for fundraising
- coordinate activities and manage risks
- evaluate past and current fundraising activities
- report outcomes according to group requirements
- manage finances including preparing budgets, handling money and recording incoming and outgoing funds

Knowledge Evidence

The candidate must demonstrate knowledge of:

- scope of acceptable activities within various cultures/groups in the community
- basic cash handling procedures
- insurance relating to fund-raising activities
- basic financial statements
- public safety requirements and legislation
- relevant local government by-laws
- permits required for some fundraising activities

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF415 Coordinate social events to support group purposes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate events that support group purposes.

This unit applies to community program leaders who coordinate events in the context of a workplace or a community group as a method of creating community interest in a Landcare program.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan events	1.1 Identify relevance of events within group's activities to ensure

Element	Performance criteria
	contribution to group goals 1.2 Canvass group members' preferences for types and frequency of activities 1.3 Develop concept, timing and resources for event to meet group's needs and support any community involvement 1.4 Manage risks of events, including group and public safety, and group image 1.5 Promote event to members and section of the community 1.6 Determine availability of personnel and resources for event 1.7 Support group to plan event within budget
2. Coordinate activities	2.1 Prepare location of event to cater for activity and people 2.2 Check availability of resources to ensure event will occur as planned 2.3 Coordinate people assisting in the event to provide an environment consistent with purpose of activity 2.4 Manage shortages in personnel and resources to minimise impact 2.5 Welcome and liaise with visitors and members to develop positive social environment
3. Close event	3.1 Clean and restore event site on completion of activity 3.2 Conduct evaluation of events including feedback from members

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF415A Coordinate social events to support group purposes.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF415 Coordinate social events to support group purposes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- facilitate small groups to plan event
- coordinate group members to organise and run events
- plan and follow-up tasks to be completed for the social event
- assess and manage risks to ensure safety of members and visitors
- close event and restore venue to clean, pre-event condition
- conduct evaluation of event to make recommendations for future events
- organise appropriate events in keeping with the community group's goals and vision

Knowledge Evidence

The candidate must demonstrate knowledge of:

- resources available in the community
- resources required for different types of events
- group goals and aim of events
- community views and cultures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF416 Present proposed courses of action to meeting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop proposed courses of action and present recommendations at meeting.

This unit applies to community program facilitators. These individuals take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop course of action and documentation	1.1 Identify and compare a range of courses of action to proposed course of action 1.2 Determine best course of action related to goal, action strategy, project or issue to solve a problem or to advance the group 1.3 Determine legislative and ethical requirements and diverse

Element	Performance criteria
	viewpoints for inclusion in decision or discussion 1.4 Identify reasons for proposed course of action including costs and benefits
2. Present recommendations	2.1 Present recommendations and rationale to committee for approval

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF416A Present proposed courses of action to meeting.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF416 Present proposed courses of action to meeting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop solutions or appropriate courses of action on own or in small groups
- present recommendations to a meeting, including analysis of suitability of course of action

Knowledge Evidence

The candidate must demonstrate knowledge of:

- sources of knowledge and advice appropriate to submission
- legislation and regulations related to proposed course of action
- structure for presenting reasoned submissions

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF501 Evaluate project submissions

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and apply evaluation criteria and processes to project submissions.

This unit applies to those who typically work as part of a team process to decide on government funding for community-based projects at regional and State/Territory levels.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Review previously planned project	1.1 Identify updates to proposed project outcomes and evaluation

Element	Performance criteria
outcomes	processes 1.2 Conduct consultations with community group leaders, coordinators and facilitators to identify any changes to original plan, timelines, outcomes, and to evaluation 1.3 Identify availability of data and suitable range of methods to evaluate project progress
2. Develop evaluation approach for project submissions	2.1 Develop criteria for evaluation of project applications or submissions 2.2 Develop decision making process for evaluating and accepting or rejecting project submissions 2.3 Consult with stakeholders on proposed criteria and decision making process 2.4 Review process based on stakeholder feedback and organisational requirements 2.5 Develop review panel for evaluation of project submissions 2.6 Communicate decision making process and selection criteria to review panel, project applicants and other key stakeholders
3. Evaluate project submissions	3.1 Acknowledge receipt of all project submissions 3.2 Use agreed processes and criteria to evaluate project submissions 3.3 Review decisions with other panellists to determine outcomes
4. Communicate decisions	4.1 Communicate decisions of panel to project applicants 4.2 Provide feedback on submissions and reasons for decisions 4.3 Publish outcomes according to organisational policies and procedures
5. Report on and implement conclusions	5.1 Prepare report to program, agency and project requirements 5.2 Check analysis and report conclusions with key stakeholders to identify any deficiencies to be removed or additional information that should be included 5.3 Ensure report meets required program and agency standards in terms of layout, format, style and process 5.4 Ensure data collection, analysis and reporting are timely to project agency requirements 5.5 Submit report according to project, program and agency requirements 5.6 Implement report conclusions to project, program and agency requirements and within the scope of the group resources and authority

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF501A Evaluate project submissions.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF501 Evaluate project submissions

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop evaluation approach and criteria
- develop review panel and review processes
- evaluate submissions against criteria
- communicate panel decisions to project applicants, including feedback on the reasons for decisions
- prepare reports to agency, project or program requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- facilitation and mediation techniques
- legislation and regulations appropriate to projects being submitted
- basic budgeting skills
- reporting and publishing requirements
- data collection and analysis techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF502 Facilitate development of group goals and projects

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to facilitate development of group goals and projects.

This unit applies to those dealing with groups and communities involved in a Landcare or similar program and covers the facilitation role to assist a group to develop its direction and role in terms of goals, action plans and projects, and to prepare submissions for funding on relevant projects. These individuals take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Promote the identification of land management and	1.1 Encourage group members to identify local environmental issues within the context of the group's activities and program scope 1.2 Develop identified issues in terms of problems, causes and actions

Element	Performance criteria
environmental issues	<p>required</p> <p>1.3 Provide opportunities for group members to learn about environmental matters and to acquire additional related skills</p>
2. Facilitate development of priorities for action	<p>2.1 Facilitate group to develop potential action strategies for identified issues that comply with program scope</p> <p>2.2 Determine priorities for action strategies based on members' interests and skills, the impact on environmental issues and promotion of solutions, and compliance with the program guidelines</p> <p>2.3 Ensure facilitation processes used are appropriate to the level of group development</p>
3. Facilitate development of goals	<p>3.1 Facilitate the group to develop goals and link them to action strategies in a cohesive action plan</p> <p>3.2 Support group to document their goals and action strategies and achieve membership approval</p> <p>3.3 Review previous goals and action plans with the group as part of the development of new goals and action plans</p> <p>3.4 Identify role of coordinator in group development and management to reduce unrealistic expectations and conflict</p> <p>3.5 Manage individual views and interests to ensure group cohesion is maintained</p> <p>3.6 Enable group to develop its goals and projects within its rules of association and program guidelines</p> <p>3.7 Correlate goals and action strategies to regional plans and initiatives</p>
4. Support group to identify and evaluate potential projects	<p>4.1 Facilitate group to identify a range of potential projects within goals and action strategy</p> <p>4.2 Lead group through an evaluation process of alternative projects to determine: compliance with members' interests and skills; project scope within the resources of the group or network of regional groups; compliance within program scope; available funding; and potential for acceptance</p> <p>4.3 Encourage group to review the results of previous projects and submissions for funds as part of the development of new projects</p> <p>4.4 Ensure facilitation process is sensitive to individual member viewpoints, perspectives and cultures, and considerate of community goals and plans to manage any potential conflict</p>
5. Support group in development of project proposals and submissions	<p>5.1 Facilitate group to develop a project plan and costing within program guidelines</p> <p>5.2 Assist group to prepare project proposal in terms of the program requirements and to complete submission for lodgement to the</p>

Element	Performance criteria
	authorities by the due date 5.3 Assist group to document project evaluation requirements in accordance with program and proposal requirements 5.4 Source relevant information to assist the group with the submission

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF502A Facilitate development of group goals and projects.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF502 Facilitate development of group goals and projects

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- facilitate development of group goals and projects
- identify and discuss land management issues with local groups
- work with groups to identify local actions that they can become involved in to promote improved land management outcomes
- provide support to a group in developing project plans and preparing project proposals and submissions
- facilitate group to reach consensus in planning decisions
- facilitate group to allow all group members the opportunity to contribute to discussions

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the range of group facilitation styles
- previous group history
- local, regional and national environmental issues
- regional community, groups and cultures
- strategic planning principles
- national, State and regional funding priorities
- community and sector perspectives on land management and environmental issues
- project planning, budgeting and costing techniques
- mediation and facilitation strategies

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF503 Promote group formation and development

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to promote group formation and development to address land management programs or projects.

This unit applies to those who bring people together to form and strengthen a Landcare group or similar, its processes and outcomes. These individuals exercise autonomy and manage other to undertake complex work and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify potential for group	1.1 Carry out community research to determine potential interest in forming group in a locality or region 1.2 Encourage members of existing groups to use their networks to promote the group and program, and to obtain new members

Element	Performance criteria
2. Develop approach to create and maintain interest	2.1 Identify community organisations and media as potential avenues for promotion 2.2 Promote program in region or locality to create interest in it and its objectives 2.3 Modify approaches to diverse sections of the community to cater for their perspectives and cultures 2.4 Bring together people interested in forming new groups
3. Communicate group potential and achievements	3.1 Identify and promote environmental issues that have the potential to be addressed by the community and group to raise interest 3.2 Record and use group and regional achievements to promote the group and the program 3.3 Identify and address any tension or conflict between people in group formation and development using appropriate and consistent conflict resolution approaches
4. Enlist members and volunteers	4.1 Invite contacts to join the group and program to increase community involvement and resources 4.2 Identify interests and skills of community members to introduce them to relevant program activities and others with mutual interests 4.3 Give people who wish to form new groups advice, support and access to information and program resources 4.4 Ensure approaches and dealings with individuals and groups include appropriate regard for cultural issues, equity and disability 4.5 Manage minority interests within the group to develop group cohesiveness in line with program requirements 4.6 Use activities to facilitate group formation and bonding and to attract new members

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF503A Promote group formation and development.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF503 Promote group formation and development

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- investigate forming a group to progress a land management issue or project
- promote the land management initiative to assist group formation and gain support from existing groups
- use activities to facilitate group formation and bonding and to attract new members
- respond to and solve conflict constructively
- show appropriate regard for cultural issues, equity and disability

Knowledge Evidence

The candidate must demonstrate knowledge of:

- sources of local information on community interests and environmental issues
- structure and operation of community organisations
- group formation processes
- public relations principles
- principles of negotiation and conflict resolution
- program objectives, scope and guidelines
- agency procedures and related requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF504 Support group and community changes in resource management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to support group and community changes in resource management.

This unit applies to those who support change management processes in a group and community context. These individuals take personal responsibility and exercise autonomy in undertaking complex work and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify changes occurring at group and community levels	1.1 Identify changes at group and community level due to voluntary initiatives or legislative requirements

Element	Performance criteria
2. Identify potential impacts and reactions	2.1 Identify potential impact of changes and reactions at group and community level 2.2 Identify support in terms of change management initiatives that may be required to implement change in the group or community 2.3 Identify cultural and sector perspectives and viewpoints to address different reactions to change
3. Facilitate change management processes	3.1 Distribute information related to the changes in terms that assist understanding and acceptance 3.2 Enable group to develop understanding of change, to manage reactions and to develop response 3.3 Encourage group to develop and implement a plan to address change and its impacts

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF504A Support group and community changes in resource management.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF504 Support group and community changes in resource management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify required or impending changes and potential impacts on a group or community
- develop change management strategies to deal with potential change issues
- distribute information about changes and provide advice and response to queries
- facilitate a group through a process of change

Knowledge Evidence

The candidate must demonstrate knowledge of:

- change management theories at individual and group level
- local networks and groups
- community viewpoints and cultures

Assessment Conditions

Assessors must satisfy current standards for assessment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF505 Contribute to regional planning process

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to contribute to a regional planning process.

This unit applies to those whose job role requires them to contribute to and assist in the regional planning process under the broad direction of technical specialists, facilitator and/or group and panels. These individuals take personal responsibility and exercise autonomy in managing and undertaking complex work and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Participate in panels and group discussion on the planning	1.1 Submit natural resource management issues, economic and social factors, and potential solutions or directions to groups for discussion

Element	Performance criteria
process	1.2 Ensure contributions are positive to assist group to develop course of action and recommendations 1.3 Structure contributions to discussions and panels and groups to comply with legislative, program and agency requirements
2. Collect data and background information	2.1 Collect information on local natural resource management issues and survey local groups, projects and programs 2.2 Make arrangements for additional data to be collected for input into analysis and the planning process
3. Contribute to the plan	3.1 Highlight local natural resource management issues to the planning team for inclusion in planning considerations 3.2 Explore relationship between local and wider issues to submit views on natural resource management priorities and solutions 3.3 Review draft plans in terms of impact on the local and wider region to identify deficiencies and propose solutions 3.4 Ensure participation in community consultation assists the regional planner to obtain feedback on the draft plan 3.5 Base proposals for improvement to draft plans on natural resource management within relevant contexts

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF505A Contribute to regional planning process.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF505 Contribute to regional planning process

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- participate in panels and group discussion on the planning process
- collect information on local land management issues and relate to economic, industry and social factors
- submit views on natural resource management priorities and solutions
- review draft plans in terms of impact on the local and wider region to identify deficiencies and propose solutions
- participate in community consultation

Knowledge Evidence

The candidate must demonstrate knowledge of:

- local community issues including economic, industry and social factors
- natural resource management issues for local area or region
- legislative, program and other requirements for regional plans and the planning process
- regional planning concepts
- natural resource management processes
- consultation approaches

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF506 Manage the incorporation of a group

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage the incorporation of a group, including identifying association requirements, seeking incorporation approvals, and executing incorporation requirements.

This unit applies to individuals who take personal responsibility and exercise autonomy and management in undertaking complex work and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify association requirements	1.1 Obtain legislative requirements for incorporation from relevant authorities 1.2 Assess readiness of group to proceed with incorporation against program and legislative requirements

Element	Performance criteria
	1.3 Seek appropriate government agency and legal advice during incorporation procedures 1.4 Document changes required in group structure, membership and operating processes for presentation to the group
2. Seek incorporation approvals	2.1 Obtain consents from members and committee at the various stages of incorporation in accordance with legislative requirements 2.2 Elect or appoint committee, public officer, treasurer, auditor and other officers in accordance with proposed association rules 2.3 Obtain consent from membership to apply for incorporation and to advertise group's intention, in accordance with legislative requirements
3. Execute incorporation requirement	3.1 Define group's objectives and operating rules in accordance with the legislation and program guidelines 3.2 Select and reserve group name in accordance with legislative requirements 3.3 Provide appropriate notice of incorporation in accordance with legislative requirements 3.4 Submit appropriate forms and pay required fees to implement incorporation according to legislative requirements 3.5 Implement changes in association documents and processes in accordance with legislative requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF506A Manage the incorporation of a group.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF506 Manage the incorporation of a group

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- document changes required to group structure, membership and operating processes according to incorporation procedures
- seek and interpret government and legal advice for the incorporation of group
- give instructions for preparation of documents to legal and enterprise standards
- use negotiation and facilitation skills to resolve conflict
- prepare and present reports to legal requirements
- identify assessment requirements
- seek incorporation approvals
- execute incorporation requirements

Knowledge Evidence

The candidate must explain:

- required legal processes and related legislation for incorporating a group
- reporting procedures for incorporated groups and for groups in programs
- group organisational structures and processes
- required financial processes
- incorporation principles and local legislation
- incorporation and reporting requirements of program
- establishment of groups and operating procedures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCCF601 Coordinate the development of regional plans

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate the development of regional plans in the context of natural resource management.

This unit applies to individuals who take responsibility for teams and exercise autonomy in undertaking complex work and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Community Coordination and Facilitation (CCF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Scope requirements	1.1 Determine reasons for development of a regional plan to identify broad goals and legislative requirements 1.2 Identify prior regional planning work as input to proposed regional planning process
2. Determine regional	2.1 Determine regional boundaries from economic, environmental

Element	Performance criteria
boundaries	<p>and social factors, that will produce a coherent plan</p> <p>2.2 Identify economic, environmental and social factors that overlap the proposed regional boundaries to develop a scope and weighting of the factors</p> <p>2.3 Review previous plans and reports to verify the suitability of the proposed regional boundaries</p> <p>2.4 Meet program requirements for the development of regional plans in the identification of regional boundaries</p>
3. Identify regional resource management issues	<p>3.1 Research regional natural resource issues from past documentation and from stakeholder views</p> <p>3.2 Research and assess current and potential impacts of government, economic, industry, environmental and social factors on natural resource management issues</p> <p>3.3 Estimate the likely depth of research required to obtain sufficient information on issues for planning purposes</p>
4. Scope stakeholders in regional resource management planning process	<p>4.1 Scope economic, industry, social and government activities to identify influential organisations, groups and people and their particular interests</p> <p>4.2 Approach organisations and groups to determine their interests, viewpoints on natural resource management issues, and willingness to participate in regional planning process</p> <p>4.3 Identify nature of community involvement in planning process from understanding of issues and community</p>
5. Develop proposal for regional plan	<p>5.1 Review the objectives of the plan after scoping to determine feasibility of proposed processes</p> <p>5.2 Develop proposal for a new or revised plan to obtain funding</p> <p>5.3 Make estimates of time to complete tasks including time for consultations and approvals and any discussion with Indigenous communities and groups</p> <p>5.4 Identify costs associated with development of regional plan from preliminary research</p> <p>5.5 Prepare proposal to address the requirements of program and relevant legislation and agency policies and processes</p> <p>5.6 Submit proposal for regional plan for approval and funding according to agency and program procedures</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCCF601A Map regional issues and stakeholders.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCCF601 Coordinate the development of regional plans

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- review existing planning documents and sources of information to inform the plan
- identify land management issues and potential solutions
- identify stakeholders to form discussion groups and seek individual input to planning
- organise for the collection and analysis of data to inform planning and monitor progress
- work with stakeholders and technical advisers to develop goals and performance criteria
- develop a draft plan for widespread consultation and feedback
- finalise the regional resource management plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- broad geographic indicators with particular emphasis on the region
- regional and rural planning concepts from town planning, rural industry planning, and natural resource planning perspectives
- impact of government processes and industry activities in social and economic terms
- consultative techniques
- National, State and Local policies, procedures and legislation that applies to regional planning
- natural resource management and issues

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM101 Follow basic chemical safety rules

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to perform a work role that uses chemicals and requires awareness of their use.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes.

This unit applies to individuals who undertake defined routine activities alongside a supervisor in most situations. They exercise limited autonomy within established and well known parameters and identify and seek help with simple problems.

The skills and knowledge described in this unit underpin a broad range of activities applicable to various job roles at various levels.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

Pre-requisite Unit

Nil.

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work with chemicals	1.1 Confirm the activity to be undertaken with the supervisor 1.2 Take steps to control risks as directed 1.3 Confirm tools and equipment to be used with supervisor 1.4 Wear appropriate personal protective equipment and ensure correct fit as directed by supervisor
2. Identify risks associated with chemicals	2.1 Identify functions of chemicals in the workplace 2.2 Identify chemical labels, safety signs and symbols, Safety Data Sheets (SDS) 2.3 Report safety hazards to supervisor 2.4 Identify and locate chemical storage locations 2.5 Recognise and observe instructions for transport, handling and storage of chemicals 2.6 Recognise and observe instructions for maintenance and storage of personal protective equipment and application equipment
3. Follow chemical handling and storage rules	3.1 Follow chemical handling and storage instructions as per labels 3.2 Follow safety rules when working in areas where chemicals are stored 3.3 Follow emergency procedures in the event of an accident or spillage 3.4 Record information as directed by supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCHM101A Follow basic chemical safety rules.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM101 Follow basic chemical safety rules

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- locate and follow safety information on chemical labels and relevant Safety Data Sheets (SDS)
- recognise caution or hazard signs and symbols
- recognise hazards and risks associated with chemical handling and use
- use appropriate personal protective equipment
- follow emergency procedures during an accident or spillage
- communicate effectively with supervisor such as raising issues of concern
- record information accurately
- apply enterprise work health and safety procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- occupational health and safety rules required to work near and around chemicals
- level of hazard and Poisons Schedule in the relevant State or Territory
- types of chemicals used for the control of pests, weeds and diseases
- personal protection equipment and when and how it should be used, stored and maintained
- environmental impacts of chemical use
- roles and responsibilities for using and managing pesticides within the workplace
- relevant work health and safety, pesticide and environmental legislation

Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM201 Apply chemicals under supervision

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to apply chemicals using workplace specific application equipment under supervision.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes.

This unit applies to individuals who undertake defined routine activities alongside a supervisor in most situations. They exercise limited autonomy within established and well known parameters and identify and seek help with simple problems.

The skills and knowledge described in this unit underpin a broad range of activities applicable to various job roles at various levels.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

Pre-requisite Unit

Nil.

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Confirm the activity to be undertaken with supervisor, including identifying potential hazards and risks 1.2 Take steps to control risks as directed 1.3 Confirm tools and equipment to be used with supervisor 1.4 Wear appropriate personal protective equipment as per label instructions and ensure correct fit
2. Check application equipment	2.1 Carry out pre-operational checks of application equipment and identify and replace any damaged or worn components or report to supervisor 2.2 Prepare application equipment for use
3. Prepare application equipment	3.1 Follow all label instructions for the chemical or substance being used 3.2 Use appropriate mixing equipment 3.3 Check that output of application equipment is correct 3.4 Measure, mix and load chemical mix or substances 3.5 Confirm instructions from chemical label and supervisor in the event of a spill 3.6 Check that output of application equipment is correct and in accordance with application/spray plan.
4. Apply chemicals	4.1 Assess and record meteorological conditions and forecasts prior to and during application where relevant 4.2 Cease application if conditions become unsuitable 4.3 Apply chemical ensuring minimal risk to others and the environment 4.4 Minimise risks to others, product integrity and the environment prior to and during application
5. Transport and handle chemicals	5.1 Confirm precautions for the transport and handling of chemicals with supervisor 5.2 Transport and handle chemicals in accordance with relevant commonwealth, state and territory chemical legislation
6. Finalise work	6.1 Clean and store personal protective equipment and application equipment in accordance with manufacturers and work health and safety requirements 6.2 Dispose of excess chemicals and clean containers in accordance with label instructions and regulatory requirements 6.3 Complete incident reports as required

Element	Performance criteria
	6.4 Complete application records 6.5 Store unused chemical and products in appropriate location 6.6 Adhere to all re-entry requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCCHM201A Apply chemicals under supervision.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM201 Apply chemicals under supervision

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and adopt safe work practices
- follow directions on chemical labels and relevant Safety Data Sheets SDS
- carry out pre-operational checks of application equipment
- measure, mix and load chemical mixes
- safely apply chemical under supervision
- report spillages, accidents or deficiencies in procedures and practices to supervisor
- use appropriate personal protective equipment
- follow emergency procedures during an accident or spillage
- follow enterprise work health and safety procedures
- safely dispose of chemicals
- record relevant information, including amount of chemical applied as per commonwealth, state and territory chemical legislation

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant commonwealth, state and territory legislation
- various transport and handling techniques and requirements
- layout and information contained in chemical labels and SDS
- features and functions of a range of application equipment relevant to the role
- risk factors to be taken into account such as human and animal health, spillage and environmental

- different broad chemical types such as insecticides, herbicides and fungicides and their mode of action symbols on the label
- paths of entry of poisons into the body and the methods of limiting exposure
- how to assess if weather conditions increase risks and when it becomes unsuitable for application to continue
- relevant applied principles of Integrated Pest and Resistance Management
- relevant parts of the workplace spray plan

Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM301 Use application equipment to apply fumigant in confined spaces

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to use application equipment to fumigate grain, seed, crops and plants in confined spaces.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes.

All work is carried out to comply with Safety Data Sheets and chemical label directions.

This unit does not cover individuals physically entering and working within an enclosed or confined space.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

Pre-requisite Unit

AHCCHM303 Prepare and apply chemicals

AHCCHM304 Transport and store chemicals

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan fumigation	1.1 Determine the need for fumigation as an option within an Integrated Pest Management (IPM) and Integrated Resource Management (IRM) strategy 1.2 Determine type of fumigant and application rate 1.3 Select method of fumigant application to suit type of pest, facility and grain or plant type 1.4 Assess appropriateness of facility and conditions for selected fumigation method 1.5 Select and use appropriate personal protective equipment as per label instructions.
2. Prepare storage facility for fumigation, application equipment and fumigants	2.1 Identify hazards, assess risks and implement control measures in relation to the use of fumigants in enclosed spaces 2.2 Establish security measures to control access during fumigation and prescribed re-entry periods 2.3 Erect signage and barriers to control risk of inadvertent entry to facility 2.4 Check seal, calculate volume of storage facility, and take appropriate measurement to ensure the required concentration of fumigant is retained 2.5 Check operational effectiveness of equipment 2.6 Calibrate fumigation equipment to deliver the correct application rate 2.7 Transport and store fumigants 2.8 Prepare fumigant in accordance with label instructions
3. Conduct and monitor fumigation	3.1 Apply fumigation using appropriate equipment, fumigation methods and sealing methods 3.2 Respond to emergency situations using emergency response procedures 3.3 Monitor fumigation site during exposure time and ventilation to prevent unauthorised access 3.4 Maintain integrity of seals throughout the active fumigation period
4. Ventilate storage facility	4.1 Establish ventilation and re-entry times and control risks 4.2 Ventilate facility to remove fumigant in a safe and controlled manner

Element	Performance criteria
	4.3 Test for evidence of residual gas using appropriate equipment 4.4 Notify appropriate personnel of any further risk control measures required
5. Restore storage facility	5.1 Collect and remove all equipment, fumigants and waste 5.2 Remove signage and barriers when facility is available for re-use 5.3 Restore storage facility
6. Clean, safety-check and store equipment and fumigants	6.1 Clean, check, decontaminate and store equipment and personal protective equipment in appropriate location 6.2 Dispose of all waste as per label instructions
7. Record fumigation details	7.1 Record details of fumigant applications 7.2 Record and report gas escapes, safety incidents or poisoning to the appropriate person or authority

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCCHM301A Conduct fumigation in enclosed spaces.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM301 Use application equipment to apply fumigant in confined spaces

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine the need for fumigation as an option within an Integrated Pest Management (IPM) and IRM strategy
- select the appropriate fumigant and application method
- prepare fumigants
- set up and calibrate fumigation equipment
- prepare and monitor the facility and equipment
- seal the facility
- conduct fumigation
- check for residual fumigant gas
- restore the facility and cleaning the equipment
- record work activities
- use appropriate personal protective equipment
- follow emergency procedures during an accident or spillage
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- primary and secondary pests relevant to grain, seed, crops or plants to be treated
- fumigant free options for pest control including Integrated Pest/Resistance Management principles
- fumigant labels and SDS used in the workplace
- how to interpret and apply fumigant label requirements

- factors and considerations in relation to fumigation of relevant grain, seed, crops and plants
- range of techniques to seal a facility
- different personal protective equipment and their uses
- legislation, regulations and licensing requirements in relation to fumigant use
- confined space regulations including signage, gas detection and entry procedures
- features, functions, calibration and set up of fumigation equipment
- risk factors including human and animal health, leakage, spillage and environmental
- how to assess for residual gas and safe re-entry periods
- consequence of fumigant residues and Maximum Residue Limits (MRLs)
- ventilation processes
- requirements for disposal of excess fumigants, clearing spillages and equipment clean up

Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM302 Fumigate soil

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to fumigate soil or media or both to control microbiological and other pests.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes, and sustainability practices. All work is carried out to comply with Safety Data Sheets and chemical label directions.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

Pre-requisite Unit

AHCCHM303 Prepare and apply chemicals

AHCCHM304 Transport and store chemicals

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Plan fumigation	<p>1.1 Determine the need for fumigation as an option within an Integrated Pest Management (IPM) and Integrated Resource Management (IRM) strategy.</p> <p>1.2 Determine type of fumigant and application rate</p> <p>1.3 Select method of fumigant application to suit type of pest and soil or media type</p> <p>1.4 Assess appropriateness of site and soil conditions for selected fumigation method</p>
2. Prepare site for fumigation	<p>2.1 Identify hazards, assess risks and implement control measures in relation to the use of fumigants</p> <p>2.2 Establish site security measures to control access during fumigation and prescribed re-entry periods</p> <p>2.3 Set up emergency system</p> <p>2.4 Prepare soil, measure soil temperature and check soil moisture to ensure that the required concentration of fumigant is retained in the soil for the required period of time</p>
3. Prepare application equipment and fumigants	<p>3.1 Select and use appropriate personal protective equipment as per label instructions</p> <p>3.2 Select application equipment appropriate for the fumigation in accordance with label directions and industry practice</p> <p>3.3 Check operational effectiveness of fumigation machinery and equipment</p> <p>3.4 Calibrate fumigation equipment to deliver the correct application rate</p> <p>3.5 Transport and store fumigants</p> <p>3.6 Prepare fumigant</p>
4. Conduct and monitor fumigation	<p>4.1 Apply fumigant using appropriate equipment and fumigation methods</p> <p>4.2 Respond to emergency situations using emergency response procedures</p> <p>4.3 Apply appropriate soil sealing methods to contain fumigant</p> <p>4.4 Monitor fumigation site during exposure time to prevent unauthorised access</p> <p>4.5 Aerate soils fully and accurately test for evidence of residual gas by conducting germination test or sowing indicator crop</p> <p>4.6 Establish re-entry times and control risks to human and animal health</p> <p>4.7 Notify appropriate personnel of any further risk control measures required</p>

Element	Performance criteria
	4.8 Ventilate fumigation enclosure if fumigation performed in glasshouse or similar to remove fumigant in safe and controlled manner
5. Restore site	5.1 Collect and remove all equipment, fumigants and waste 5.2 Remove signage when site is available for re-use 5.3 Restore site
6. Clean, safety-check and store equipment and fumigants	6.1 Clean, decontaminate, check and store equipment and personal protective equipment in appropriate location 6.2 Dispose of all waste as per the label
7. Record fumigation details	7.1 Record details of fumigation 7.2 Record and report safety incidents or poisoning to the appropriate person or authority

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCCHM302A Fumigate soil using chemicals.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM302 Fumigate soil

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess the need for fumigation
- select appropriate fumigant and application method
- conduct pre-operational checks on equipment and personal protective equipment
- prepare site for fumigation
- set up and calibrating fumigation equipment
- fumigate soils safely in accordance with chemical label
- aerate soils and check for residual fumigant gas
- ventilate fumigation enclosure if fumigation is performed in glasshouse or similar
- clean and store fumigation equipment and personal protective equipment after completing work
- use appropriate personal protective equipment
- follow emergency procedures during an accident or spillage
- complete fumigation records follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- primary and secondary soil/media pests
- threshold pest levels and cost benefit
- fumigant free options for pest control including Integrated Pest/Resistance Management principles
- how to interpret fumigant label and SDS requirements
- soil, media type, moisture and temperature factors in relation to fumigation
- features, functions, calibration and set up of fumigation equipment

- legislation, regulations and licensing requirements in relation to fumigant use
- risk factors including human and animal health, weather, leakage, spillage and environmental
- requirements for disposal of excess fumigants, clearing spillages and equipment clean up
- a variety of primary and secondary soil and media pests
- a variety of fumigant labels and SDS used in the workplace
- types and application of personal protective equipment

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM303 Prepare and apply chemicals

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and apply chemicals for the control of pests across a range of industry sectors.

This unit covers the use of general application equipment used across a variety of industries including; boom sprays, orchard air-blast sprayers, handheld spray equipment, wipers, dry chemical applicators, dips, pour-on, spot-on, vaccination and drenching equipment.

All work must be carried out to comply with workplace procedures, work hand safety and pesticide legislation and codes.

All work must be carried out to comply with chemical label instructions, Safety Data Sheets (SDS's), the organisation's application plan and relevant legislation.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

This unit may be deemed to have a time limit when used as part of an accreditation or licence process.

Pre-requisite Unit

Nil.

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine the need for chemical use and prepare a application plan	1.1 Identify the nature and level of the pest, weed infestation or disease, assess the need for control 1.2 Assess the requirement for chemical use as an option within an integrated pest management strategy 1.3 Undertake a hazard and risk analysis of different chemical options 1.4 Confirm requirement for chemical application 1.5 Assess the spray drift risk of various application options 1.6 Assess the risk to sensitive areas and environmentally sensitive organisms 1.7 Prepare application/spray plan where required
2. Prepare chemical mixes	2.1 Access the workplace application or spray plan to determine chemical and target, application rate or dose, type of application equipment, set-up requirements and amount to be applied as per the label instructions 2.2 Identify potential hazards, assess risks and implement control measures 2.3 Interpret and apply requirements from chemical labels 2.4 Select appropriate personal protective equipment (PPE) for each stage of work and ensure correct fit 2.5 Select appropriate mixing equipment and a suitable location for mixing and loading 2.6 Mix chemicals in accordance with registered use and clean equipment when finished task 2.7 Follow label instructions in the event of a spill 2.8 Confirm that neighbours have been notified of chemical application as appropriate
3. Calibrate application equipment	3.1 Select application equipment to be used to minimise spray drift risk and maximise efficacy 3.2 Carry out pre-operational checks of application equipment 3.3 Calibrate equipment in accordance with manufacturers' specifications and application/spray plan. 3.4 Safely load chemical mix wearing appropriate Personal Protective

Element	Performance criteria
	Equipment (PPE) and controlling risks to human health and the environment
4. Apply chemicals	4.1 Monitor meteorological conditions and forecasts prior to and during application to minimise spray drift and other off target movement of chemicals 4.2 Select and use appropriate PPE in accordance with chemical label and SDS's 4.3 Apply chemical in accordance with the label and application/spray plan 4.4 Assess and minimise risks to others, product integrity and the environment 4.5 Follow chemical spill or accident procedures in the event of a spill
5. Clean up equipment and complete records	5.1 Dispose of excess chemicals and containers as per label and SDS instructions 5.2 Clean and decontaminate application equipment in appropriate location 5.3 Clean and store personal protective equipment in appropriate location 5.4 Report incidents 5.5 Complete all records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCCHM303A Prepare and apply chemicals.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM303 Prepare and apply chemicals

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine the need for chemical application
- develop a application/spray plan
- identify hazards and implement risk control procedures to ensure a safe workplace
- interpret and apply chemical label requirements included in the application or spray plan
- identify weather conditions that impact on spray drift risk and implement control measures
- conduct pre-operational checks of application equipment
- calibrate handheld and/or powered application equipment relevant to the industry sector
- mix and load chemicals in accordance with label requirements
- measure and record weather conditions before and during and after application
- apply chemicals safely in compliance with labels, legislation and codes of practice
- dispose of surplus chemicals and empty containers
- record relevant information including amount of chemical applied
- use appropriate personal protective equipment
- follow emergency procedures during an accident or spillage

Knowledge Evidence

The candidate must demonstrate knowledge of:

- options for pest control based on the Integrated Pest and Resistance Management Plan
- pest and/or disease resistance management
- various chemical labels and SDS formats
- impact of meteorological factors on the safe and effective application of chemicals

- factors that determine spray drift risk including droplet size, wind speed, temperature and temperature inversions and approaches to controlling spray drift risk
- risk factors including human and animal health, weather prior to, during and after application, spillage, residues in plants and animals consumed as food and environmental
- how to mix chemicals including mixing order, adjuvants and water quality
- requirements for disposal of excess chemicals, clearing spillages and equipment clean up
- how to select, operate and use a variety of application equipment including boom sprays
- features, functions and calibration techniques for a range of powered and hand held application equipment relevant to the industry sector
- spray nozzle identification, selection, operation and use
- pests, weeds and/or diseases relevant to the industry sector
- legislation, regulations and licensing requirements in relation to chemical use
- APVMA policy on spray drift management

Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

The candidate must be assessed at least once calibrating application equipment.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM304 Transport and store chemicals

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to safely transport, handle and store liquid and dry chemical formulations across a broad range of industry sectors.

This unit does not cover operation of specialised chemical application equipment and machinery or application of chemicals.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes. All work is carried out to comply with Safety Data Sheets, chemical label directions and relevant legislative requirements.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Confirm the regulatory requirements that apply in the relevant State or Territory.

This unit may be deemed to have a time limit when used as part of an accreditation or licencing process.

Pre-requisite Unit

Nil.

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to transport and handle chemicals	1.1 Identify hazards, assess risks and implement control measures 1.2 Confirm contact phone numbers of emergency services are carried in vehicle in case of accident, spill or fire 1.3 Confirm chemicals will be transported in a vehicle that is compliant with the relevant legislation. 1.4 Confirm containers are secured in the tray, protected from the weather and in a sound condition to transport 1.5 Confirm appropriate first aid kit is carried in the vehicle in case of accident, spill or fire 1.6 Confirm transport arrangements meet legislative and regulatory requirements for the transport of hazardous substances and dangerous goods. 1.7 Obtain current Safety Data Sheets (SDS) from reseller or manufacturer for all chemicals to be transported
2. Transport and handle chemicals	2.1 Follow instructions from chemical SDS, to comply with transport requirements 2.2 Follow instructions from chemical label and SDS in the event of a spill or accident 2.3 Report transport incidents as required
3. Store chemicals in the workplace	3.1 Select and use appropriate personal protective equipment and ensure correct fit 3.2 Use appropriate storage methods as per label and Safety Data Sheet requirements and work health and safety standards 3.3 Maintain storage area according to legislative and regulatory requirements, including work health and safety and environmental protection. 3.4 Retain products in original containers with labels intact 3.5 Utilise storage methods to prevent contact with people or animals and contamination of produce or the environment 3.6 Apply correct disposal procedures for used chemical drums and storage containers as per the label and industry programs 3.7 Dispose of unwanted and out-of-date chemicals in the appropriate manner according to legislative and regulatory requirements and industry programs
4. Record storage details	4.1 Maintain chemical storage inventory and records according to legislative requirements

Element	Performance criteria
	4.2 Report storage incidents according to legislative requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCCHM304A Transport, handle and store chemicals.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM304 Transport and store chemicals

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow legislative requirements for the safe transport of chemicals
- follow emergency procedures for chemical spillage
- handle, transport and store chemical safely
- maintain a chemical storage area and chemical manifest, including copies of SDS for each product
- follow chemical label directions and SDS requirements for handling, transporting and storage
- maintain storage records
- follow enterprise work health and safety policies
- follow enterprise environmental protection policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- how to read a chemical label and SDS and translate that information into actions
- appropriate legislation and regulations that apply to transporting and storing chemicals
- risk factors including human and animal health and environmental associated with transporting, handling and storing chemicals
- requirements for disposal of excess, unwanted and out-of-date chemicals and used chemical containers
- processes to clear spillages and clean up
- types of placarding required for storage of hazardous chemicals and dangerous goods
- types of emergency information that must be carried in the vehicle when transporting dangerous goods

Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM305 Conduct manual fumigation of vertebrate and invertebrate pests

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to control vertebrate and invertebrate pests by means of manual fumigation.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes.

All work must be carried out to comply with Safety Data Sheets, chemical label directions and the Integrated Pest Management strategy.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources. Work is carried out to industry standards.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

This unit may be deemed to have a time limit when used as part of an accreditation or licence process.

Pre-requisite Unit

AHCCHM303 Prepare and apply chemicals

AHCCHM304 Transport and store chemicals

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine type and method of fumigation	1.1 Identify the nature and level of pest presence 1.2 Determine need for fumigant use within an Integrated Pest Management (IPM) strategy 1.3 Determine type of fumigant and application rate 1.4 Select method of fumigant application to suit type of pests and site 1.5 Determine volume to be fumigated to ensure fumigation conditions are met as per label instructions 1.6 Conduct and record work health and safety risk assessment for both fumigation and post fumigation re-entry
2. Prepare to use fumigant according to label and SDS	2.1 Select appropriate personal protective equipment (PPE) as per label requirements and check for effectiveness 2.2 Define and calculate application/dosage rates 2.3 Erect prominent signage notifying passers-by of fumigation operation in progress 2.4 Identify hazards, assess risks and implement control measures 2.5 Prepare fumigation site to control inadvertent entry or exposure 2.6 Implement emergency procedures as required
3. Conduct fumigation	3.1 Confirm first aid equipment is available onsite 3.2 Assess weather conditions and forecasts prior to and during application 3.3 Create airtight seal in fumigation area to ensure maximum effectiveness of fumigation 3.4 Signpost and barricade fumigation site where required to prevent access 3.5 Apply fumigant safely and effectively in accordance with label requirements 3.6 Control site until area is suitable for re-use 3.7 Transport and store fumigants as required
4. Monitor fumigation	4.1 Monitor fumigation site to control access and maintain safe conditions during active period for the time specified on the label

Element	Performance criteria
	4.2 Monitor fumigation site for pest activity 4.3 Assess fumigant escape safety implications and take immediate action if required
5. Ventilate fumigated area	5.1 Follow label direction to determine when conditions are suitable for ventilation to minimise risk to health and safety 5.2 Calculate time required for ventilation 5.3 Ventilate site in accordance with registered label, SDS, Code of Practice and enterprise standards
6. Clean up following fumigation	6.1 Remove barriers, signs and locks and store for future use in appropriate location 6.2 Clean, decontaminate, check and store equipment and personal protective equipment in appropriate location 6.3 Transport and store fumigants in accordance with label, legislative and industry practice 6.4 Dispose of all waste as per label instructions
7. Record application details	7.1 Record details of fumigant applications 7.2 Record details of fumigant used in the chemical inventory or register 7.3 Maintain inventory of personal protective equipment 7.4 Follow procedures and requirements for reporting fumigation details to management/employer 7.5 Record and report safety incidents or poisoning to the appropriate person or authority

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCHM305A Conduct manual fumigation of vertebrate and invertebrate pests.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM305 Conduct manual fumigation of vertebrate and invertebrate pests

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select the appropriate fumigant for the identified pest
- interpret fumigant labels and SDS
- prepare fumigants according to chemical label instructions
- store and disposing of spent fumigants
- prepare a site for fumigation and erecting appropriate signage
- seal the facility
- apply fumigant, monitor and ventilate sites
- check for residual fumigant gas
- restore the facility and cleaning the equipment
- record work activities
- use appropriate personal protective equipment
- follow emergency procedures during an accident or spillage
- follow enterprise work, health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- fumigant labels and SDS used in the workplace
- a range of techniques to seal a site
- primary vertebrate and invertebrate pests that can be controlled by manual fumigation methods
- best fumigants to use for specific pests
- site factors in relation to fumigation

- relevant legislation and licencing requirements in relation to fumigant use
- risk factors including human and animal health, weather, leakage, spillage and environmental
- requirements for disposal of spent fumigant, clearing spillages and equipment clean up

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM306 Prepare and apply chemicals for hand held application equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and apply chemicals for the control of pests across a range of industry sectors using a range of hand held application equipment.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes.

All work must be carried out to comply with, chemical label instructions, Safety Data Sheets the organisation's application plan and relevant legislation.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

Pre-requisite Unit

Nil.

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine the need for chemical use and prepare basic application plan	1.1 Identify the nature and level of the pest, weed infestation or disease, and assess the need for control 1.2 Assess the requirement for chemical use as an option within an integrated pest management strategy 1.3 Undertake a hazard and risk analysis of different chemical options. 1.4 Confirm requirement for chemical application 1.5 Prepare basic application plan
2. Prepare chemical mixes	2.1 Access the workplace application plan to determine chemical and target, application rate or dose, type of application equipment, set-up requirements and amount to be applied as per the label instructions 2.2 Identify potential hazards, assess risks and implement control measures 2.3 Interpret and apply requirements from chemical labels and Safety Data Sheets (SDS) 2.4 Select appropriate personal protective equipment (PPE) for each stage of work and ensure correct fit 2.5 Select appropriate mixing equipment and a suitable location for mixing and loading 2.6 Mix chemicals in accordance with registered use and clean Follow chemical label instructions in the event of a spill 2.7 Follow chemical label instructions in the event of a spill 2.8 Confirm that neighbours have been notified of chemical application as appropriate
3. Calibrate application equipment	3.1 Select application equipment to be used to minimise spray drift risk and maximise efficacy 3.2 Carry out pre-operational checks of application equipment 3.3 Calibrate equipment in accordance with manufacturers' specifications and application/spray plan 3.4 Safely load chemical mix
4. Apply chemicals	4.1 Monitor meteorological conditions and forecasts prior to and during application to minimise spray drift and other off target movement of chemicals 4.2 Select and use appropriate PPE in accordance with SDS and chemical label

Element	Performance criteria
	4.3 Apply chemical in accordance with the application plan 4.4 Assess and minimise risks to others, product integrity and the environment 4.5 Follow chemical spill or accident procedures in the event of a spill
5. Clean up equipment and complete records	5.1 Dispose of excess chemicals and containers as per label and Safety Data Sheet instructions 5.2 Clean and decontaminate application equipment in appropriate location 5.3 Clean and store personal protective equipment in appropriate location 5.4 Report incidents 5.5 Complete all records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM306 Prepare and apply chemicals for hand held application equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine the need for chemical application
- develop a basic application plan
- identify hazards and implement risk control procedures to ensure a safe workplace
- conduct pre-operational checks of application equipment
- calibrate handheld application equipment relevant to the industry sector
- interpret and apply chemical label requirements included in the application plan
- mix and load chemicals in accordance with label requirements
- measure and record weather conditions before, during and after application
- apply chemicals safely in compliance with labels, legislation and codes of practice
- dispose of surplus chemicals and empty containers
- record relevant information including amount of chemical applied
- use appropriate personal protective equipment
- follow emergency procedures during an accident or spillage
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- options for pest control based on the Integrated Pest and Resistance Management Plan
- pest and/or disease resistance management
- various chemical labels and SDS formats
- impact of meteorological factors on the safe and effective application of chemicals

- risk factors including human and animal health, weather prior to, during and after application, spillage, residues in plants and animals consumed as food and the environment
- how to mix chemicals including mixing order, adjuvants and water quality
- requirements for disposal of excess chemicals, clearing spillages and equipment clean up
- how to select, operate and use a variety of application equipment
- features, functions and calibration techniques for a range of hand held powered and non-powered application equipment relevant to the industry sector
- pests , weeds and/or diseases relevant to the industry sector
- legislation, regulations and licensing requirements in relation to chemical use

Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

The candidate must be assessed at least once calibrating hand held application equipment.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM401 Develop procedures to minimise risks in the use of chemicals

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assess and mitigate risks associated with the use of chemicals across a range of industry sectors.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes,

This unit applies to individuals who take responsibility for their own work and may provide direction to others. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems. Work is carried out to industry standards.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit. Competency in this unit may be deemed to have a time limit when used as part of an accreditation or licence process.

Pre-requisite Unit

AHCCHM303 Prepare and apply chemicals

AHCCHM304 Transport and store chemicals

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify hazards and risks	1.1 Identify and source Codes of Practice, legislation, regulations and industry requirements relating to chemical use 1.2 Identify hazards involved in chemical handling and application
2. Assess risks and develop control procedures	2.1 Assess risks associated with chemicals used 2.2 Develop risk control measures and emergency action plans 2.3 Develop control procedures for transport, handling, storage, application, decontamination and disposal of chemicals 2.4 Develop a continuous improvement strategy to minimise risk
3. Monitor and assess adherence to chemical risk procedures	3.1 Provide appropriate personal protective equipment for employees using chemicals 3.2 Assess staff selection of application equipment according to procedures 3.3 Assess the ability of staff to follow restrictions on chemical use, application, decontamination and disposal 3.4 Assess how risk control procedures are followed in the workplace
4. Evaluate risk control measures and maintain records	4.1 Develop procedures for evaluating the effectiveness of risk control measures 4.2 Identify shortfalls during evaluation and subsequently rectify 4.3 Maintain risk assessment records according to industry, label, legislative and regulatory requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCCHM401A Minimise risks in the use of chemicals.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM401 Develop procedures to minimise risks in the use of chemicals

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- evaluate implementation of procedures
- identify hazards, assess risks and implement and monitor control measures
- develop risk control procedures
- develop a continuous improvement strategy to minimise risk
- interact with staff members and provide feedback
- implement, monitor and evaluate a chemical risk control strategy maintain records

Knowledge Evidence

The candidate must demonstrate knowledge of:

- where to source Codes of Practice, legislation and industry requirements relating to chemical use
- hazard identification and risk assessment strategies
- risk factors including human and animal health, product integrity, weather, spray drift, spillage and environmental
- principles of transport, handling and storing chemicals
- requirements for the disposal of excess chemicals, clearing spillages and equipment clean up
- chemical application equipment capabilities and limitations

Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM402 Plan and implement a chemical use program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and implement a program for the use of chemicals as well as assess and mitigate risks associated with the use of chemicals across a range of industry sectors.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and may provide direction to others. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems. Work is carried out to industry standards.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit. This unit may be deemed to have a time limit when used as part of an accreditation or licence process.

Pre-requisite Unit

AHCCHM303 Prepare and apply chemicals

AHCCHM304 Transport and store chemicals

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify requirements for chemical use	1.1 Assess the need for chemical use as an option within an Integrated Pest Management or animal health strategy or both 1.2 Identify and interpret Codes of Practice, legislation and regulations and industry requirements relating to chemical use 1.3 Confirm that personnel are adequately trained in chemical use
2. Assess risks and develop control procedures	2.1 Identify hazards, assess risks and develop control measures and emergency action plans for transport, handling, storage, application, decontamination and disposal of chemicals 2.2 Assess meteorological conditions and forecasts prior to application to determine the need to control the risk of spray drift and other off-target movement 2.3 Assess the risk to sensitive areas and environmentally sensitive organisms according to label restraints and protection statements 2.4 Assess the risk to human and animal health according to label safety directions, Safety Data Sheet SDS by hazard statements and exposure controls 2.5 Document preferred control procedures as management component of application or spray plan
3. Develop an operational and maintenance program for chemical use	3.1 Determine correct chemicals to be used after accessing the Integrated Pest Management Strategy or Animal Health Strategy 3.2 Define and calculate mixing rates for chemicals, including mixing order if more than one chemical is to be mixed in the tank, adjuvants and water quality 3.3 Specify pre-operational checks that must be carried out and calibration requirements 3.4 Develop and implement a maintenance strategy for application equipment and personal protective equipment 3.5 Document all procedures as operational and maintenance component of application or spray plan
4. Implement and monitor application or spray plan	4.1 Provide appropriate personal protective equipment for employees using chemicals 4.2 Monitor the implementation of safe practice in the workplace including preparation and application of chemicals 4.3 Monitor implementation of procedures for transport, handling, storage, decontamination and disposal 4.4 Monitor implementation of maintenance procedures 4.5 Monitor implementation of procedures to mitigate residues in

Element	Performance criteria
	produce and the environment
5. Finalise work activities in accordance with application or spray plan	5.1 Check that excess chemicals are disposed of appropriately 5.2 Check all required records including incident reports are completed
6. Evaluate application or spray plan and records for continuous improvement	6.1 Develop procedures for evaluating the effectiveness of the application or spray plan including risk control measures to achieve continuous improvement 6.2 Develop a continuous improvement strategy to minimise risk Identify shortfalls during evaluation and subsequently rectify

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

AHCCHM401A Minimise risks in the use of chemicals and AHCCHM402A Plan and implement a chemical use program.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM402 Plan and implement a chemical use program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- evaluate implementation of procedures
- identify hazards, assessment of risks and implementation and monitoring of control measures
- develop a continuous improvement strategy to minimise risk
- communicate critical chemical information to staff and ensuring understanding
- direct staff to perform tasks
- keep records
- implement enterprise work health and safety policies and procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- where to source legislation, Codes of Practice and industry requirements relating to chemical use
- hazard identification and risk assessment strategies
- risk factors including human and animal health, product integrity, weather prior, during and after application, spillage and environmental
- principles of transport, handling and storing chemicals
- requirements for the disposal of excess chemicals, clearing spillages and equipment clean up
- chemical application equipment capabilities and limitations
- life cycle of a variety of pests and the target stages
- implications of pest resistance to chemicals
- maximum residue limits

- how to calibrate equipment
- first aid and emergency procedures that may be required
- signs of pest damage and signs of beneficial organisms

Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM403 Prepare safe operating procedures for calibration of equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare workplace procedures for the calibration of equipment used in the application of pest, weed and fungi control chemicals and bio-agents.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes.

This unit applies to individuals who take responsibility for their own work and may provide direction to others. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

Pre-requisite Unit

Nil.

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Identify needs	1.1 Identify equipment requiring calibration procedures 1.2 Assess the skill levels of operators relating to calibration in consultation with operators and supervisors where appropriate 1.3 Gather information required for procedures from appropriate sources
2. Prepare procedure	2.1 Confirm that information in procedures complies with relevant regulatory requirements, manufacturers' instructions and industry practice as applicable 2.2 Carry out a risk assessment of the calibration task and incorporate risk controls into the safe operating procedure 2.3 Confirm that procedures are in a form clearly understandable to the intended users 2.4 Highlight work health and safety issues relevant to the activities in the procedures to the users

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is no equivalent to AHCCHM403A Prepare safe operating procedures for calibration of equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM403 Prepare safe operating procedures for calibration of equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify needs for calibration
- analyse tasks involved in calibration
- carry out a risk assessment of the calibration task and incorporate risk controls into the safe operating procedure
- prepare procedures for calibration clearly and accurately in a manner suited to the users
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant work health and safety, pesticides and environmental legislation, codes of practice and enterprise procedures
- chemical handling and application
- work health and safety issues involved in calibration
- mechanical and electronic controls on application equipment

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCHM501 Develop and manage a chemical use strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and manage a chemical use strategy, including assessment of the risk of chemical transport, storage and handling.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes of practice.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

Pre-requisite Unit

Nil.

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and evaluate	1.1 Interpret the Integrated Pest Management (IPM), the Integrated

Element	Performance criteria
need for chemical use	Resistance Management (IRM) strategies and the organisational chemical requirements 1.2 Identify external requirements for chemical use and obtain and interpret relevant information 1.3 Document requirements for chemical use 1.4 Identify chemicals available to meet requirements and review information concerning their application
2. Develop a chemical use risk management strategy	2.1 Identify and assess hazards in the transportation, storage and handling of chemicals 2.2 Identify and document risk factors associated with the use of chemicals 2.3 Identify risk control measures and develop in accordance with regulatory requirements 2.4 Develop a risk management strategy for chemical use in accordance with legislation and IPM, IRM, and Integrated Animal Health Management principles 2.5 Research and document appropriate insurance policies covering intended chemical use according to workplace guidelines
3. Develop and implement procedures for chemical management and use	3.1 Develop procedures for management and use of chemicals in accordance with directions and standards 3.2 Document required precautions and risk control measures 3.3 Develop procedures for communicating and negotiating with the community 3.4 Distribute information on procedures and precautions in the management and use of chemicals to relevant staff
4. Identify training and supervision needs and solutions for chemical use in the workplace	4.1 Develop an appropriate strategy for the training, assessment and supervision of staff involved in chemical use including correct use and fit of personal protective equipment 4.2 Organise and provide suitable internal on-the-job training and monitoring of performance in the implementation of the chemical use strategy 4.3 Organise appropriate external training and assessment in the management and use of chemicals
5. Monitor and evaluate the implementation of a chemical use strategy	5.1 Monitor the implementation of the established chemical use strategy in terms of regulatory requirements and established criteria 5.2 Evaluate the effectiveness of the established chemical use strategy 5.3 Initiate appropriate action where there are identified problems or where required procedures and precautions are not being correctly followed

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCHM501A Develop and manage a chemical use strategy.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCHM501 Develop and manage a chemical use strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- incorporate into enterprise procedures relevant legislation, codes of practice and industry requirements covering work health and safety, hazardous substances, environment and food safety requirements related to the use of chemicals
- convey the role of chemical labels and Safety Data Sheets (SDS) in determining chemical transport, storage, handling, application and disposal procedures and practices to all staff
- ensure all staff have access to SDS for all agricultural chemicals used in the workplace
- put procedures in place to assess the risk to human health, environment, fauna and flora and market acceptability of produce from chemical transport, storage, handling, application and disposal
- develop a communication strategy to:
 - remind relevant staff of their responsibilities in chemical use
 - inform all staff exposed to agricultural chemicals of the need to minimise exposure and how to act in an emergency
 - inform neighbours when chemical spraying is planned to take place as appropriate
 - make agencies aware when a chemical spill has occurred
- develop an induction program that covers the work health and safety requirements and the responsibilities of all staff within that system
- record the training needs and completion of the training for all staff members
- monitor the health of all staff exposed to chemicals according to regulatory requirements
- ensure the need for chemical application and selection of chemicals for a purpose is in line with the enterprises documented IPM and IRM strategies
- select application techniques based on spray drift management principles, accurate placement of chemicals and the correct use of personal protective equipment

- make an application to authorities in the case of off label use and ensuring all conditions and requirements on permits have been implemented
- ensure chemical application is carried out by trained staff as required by trained staff
- ensure all withholding periods and requirements to limit access to sprayed areas have been met and can be supported by the workplace's recording system
- ensure chemical storage systems meet industry and legislative requirements and access to storage areas is covered by workplace procedures
- document and display chemical emergency procedures and conveying information to staff
- ensure all requirements for chemical signage have been met for the transport and storage of chemicals and for areas affected by chemical application
- monitor chemical persistence in vegetation, soil and water in managing environmental risk
- develop and maintain recording procedures that cover all aspects of the transport, storage, handling, application and disposal of chemicals in the workplace
- conduct periodical reviews of chemical procedures based on workplace records and where issues have emerged, necessary changes made and communicated to staff

Knowledge Evidence

The candidate must demonstrate knowledge of:

- hazards to human health, agricultural produce, and all aspects of the environment and non-target species of flora and fauna associated with the transport, storage, handling, application and disposal of chemicals
- factors that contribute to spray drift, measures to assess the potential for spray drift and prevent or control its occurrence, and the elements of a spray drift management strategy
- calibration of a range of application equipment
- routes of entry of chemicals into the body and the implications of this on chemical use management strategies
- safety procedures including the maintenance, use, fit and decontamination of personal protective clothing and equipment
- influence of meteorological factors (temperature, humidity, rain) on quality of chemical application, drift potential, effectiveness and efficacy of use
- precautions and risk control measures that may be used to minimise risks and hazards associated with the use of chemicals
- principles of IPM, IRM, IAM and their benefits in terms of chemical use risk management
- emergency procedures for safety incidents involving chemicals
- requirements and options for the keeping of records on chemical use and equipment maintenance and repair
- principles of residue effects and their management including persistence in soil and water, accumulation in agricultural produce, rate of breakdown of residues in produce and in the environment, withholding periods, and ways in which residues can occur
- movement of and persistence and degradation of different types of chemicals in various areas of the environment such as soil, air and water
- industry waste agreements, including drum MUSTER, and ChemClear
- relevant work health and safety legislative requirements and Codes of Practice

- relevant Federal/State and Territory pesticide legislation
- appropriate insurances covering chemical use, transportation and storage
- use of chemicals as part of a comprehensive Quality Assurance (QA) system, Industry QA programs and performance standards

Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCMN101 Adapt to work requirements in the agrifood industry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to take up employment within a specified sector of the agrifood industry.

It includes the application of industry and workplace guidelines and procedures in a day to day work context as well as appropriate work behaviour.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Common (CMN)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Manage one's own learning	1.1 Consider and articulate personal goals or vision 1.2 Identify opportunities for learning new ideas and techniques in relation to personal goals 1.3 Recognise personal learning needs and skill gaps

Element	Performance criteria
	1.4 Identify opportunities for skill development activities in consultation with relevant persons 1.5 Access and apply learning tools and practices to job 1.6 Take advantage of on-job and off-job learning opportunities
2. Adapt to and demonstrate appropriate work practices	2.1 Identify and interpret work requirements with advice from appropriate persons 2.2 Follow enterprise work health and safety policies 2.3 Observe appropriate dress and behaviour 2.4 Identify and achieve a work and personal priorities balance 2.5 Apply time management strategies to work duties 2.6 Tailor interaction with others to take into account different backgrounds, cultures and languages
3. Work within organisational requirements	3.1 Identify organisational requirements and key activities of the workplace 3.2 Identify and apply relevant workplace policies and guidelines to work undertaken 3.3 Interpret organisational values and cultural norms 3.4 Discuss and clarify uncertainties with key personnel
4. Identify sectors of the industry	4.1 Identify main sectors of the targeted industry, their key activities and the way in which they interrelate 4.2 Clarify roles and responsibilities of targeted industry 4.3 Identify key organisations representing industry and their roles 4.4 Identify current issues or events affecting the industry
5. Identify industry sector products and services	5.1 Identify products provided by the industry sector 5.2 Identify services provided by the industry sector 5.3 Identify service standards in the industry sector 5.4 Clarify industry quality standards for products and services

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AGFCMN101A Adapt to work requirements in agri-food industry.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCMN101 Adapt to work requirements in the agrifood industry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify learning opportunities which support personal goals or vision
- recognise and take advantage of learning opportunities in the workplace
- adapt to and apply workplace procedures and practices
- complete work tasks according to workplace requirements, standards and applicable regulations
- identify and interpret information on sectors in the targeted industry
- identify and interpret information on the range of products and services produced by the targeted industry
- recognise and adapt to cultural differences in the workplace
- discuss work concerns and questions with supervisor or key personnel
- complete work with required attention to detail without damage to goods, equipment or personnel
- follow industry and enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- current events, activities, products and services of the targeted industry
- workplace policies, procedures and guidelines
- time-management strategies
- appropriate workplace protocols
- workplace equipment, tools and other technologies used in the targeted industry, and where and how to obtain information and instructions on their safe use and basic care and servicing

- sources of information on the industry sector and skills development activities

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCMN102 Apply effective work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and complete tasks effectively within a workplace environment, including working with others, using technologies and solving simple work problems.

This unit is designed for use in a Pathway qualification or skills set. It should not be used in a qualification that has a direct job outcome.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Common (CMN)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan, organise and complete daily work	1.1 Identify and interpret work instructions and priorities in consultation with supervisor 1.2 Determine and map out appropriate work plan or daily routine 1.3 Determine, collect and organise materials, resources and information needed to complete work

Element	Performance criteria
	1.4 Complete work tasks within designated timelines and in line with quality standards and instructions 1.5 Follow work health and safety policies 1.6 Deal with problems that arise in a practical, timely and appropriate manner and seek assistance when required 1.7 Seek feedback on work performance and make improvements as required
2. Communicate effectively	2.1 Identify appropriate lines of communication with supervisors, colleagues and customers 2.2 Use effective communication skills as well as literacy and numeracy skills, to gather and convey information 2.3 Demonstrate appropriate non-verbal behaviour
3. Work with others	3.1 Identify work roles of self and others in the workplace 3.2 Contribute to team outcomes in a manner that fulfils own work responsibilities and promotes cooperation and good relationships 3.3 Interact respectfully with customers and colleagues from diverse backgrounds
4. Use workplace technology	4.1 Select appropriate workplace technology to complete work tasks and use according to workplace and manufacturer guidelines and instructions 4.2 Inspect workplace technology to ensure it is working properly and take precautions to reduce risks to technology and self 4.3 Take appropriate action to address or report problems with workplace technology 4.4 Care for workplace technology according to workplace and manufacturer guidelines and instructions
5. Solve work problems	5.1 Identify problems and determine practical or creative solutions within scope of individual responsibility 5.2 Seek assistance from key personnel when required 5.3 Report workplace problems as required using workplace procedures
6. Adapt to change	6.1 Identify, clarify and accommodate new work requirements or situations 6.2 Identify possible practical or creative options to deal with workplace challenges, and discuss with supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AGFCMN102A Apply effective work practices.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCMN102 Apply effective work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret responsibilities and plan own work activities
- follow work health and safety policies
- apply relevant ethical practices and codes of practice in the course of work activities
- recognise simple numerical information relating to work activity
- communicate effectively in the course of work activities
- complete work activities in collaboration with others according to instructions, procedures and applicable regulations
- identify, report and address problems according to workplace procedures
- complete work activities with required attention to detail and without damage to goods, equipment or personnel
- use a range of workplace technologies
- use industry standard terminology

Knowledge Evidence

The candidate must demonstrate knowledge of:

- procedures for identifying and using relevant workplace technology
- systems and equipment used in the workplace and instructions, processes and precautions for their use
- typical problems in the workplace and appropriate action and solutions
- workplace procedures, policies and instructions
- workplace structures and roles and responsibilities of individuals, and team and group members
- basic principles of teamwork in the workplace

- verbal and non verbal communication techniques appropriate to receive and convey workplace information
- basic concepts of time management to meet daily planning and scheduled timelines
- industry and enterprise work health and safety policies

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCMN103 Demonstrate care and apply safe practices at work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify and apply safe work procedures that relate to own work. This includes identifying and responding to hazards, risks and emergencies, and maintaining a safe and clean workplace.

This unit is designed for use in a Pathway qualification or skills set. It should not be used in a qualification that has a direct job outcome.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Common (CMN)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Follow work health and safety procedures	1.1 Identify and interpret work health and safety procedures and requirements that relate to own work 1.2 Undertake work activities in a safe manner according to work health and safety guidelines, and enterprise policies and procedures

Element	Performance criteria
	1.3 Use personal protective clothing and equipment according to established safety and work procedures 1.4 Identify participative arrangements for work health and safety, and contribute as appropriate
2. Respond to workplace hazards	2.1 Recognise and describe known workplace hazards and measures for controlling risks 2.2 Identify and apply procedures for reporting hazards and risks 2.3 Respond to hazards, incidents and injuries to self and others, in a timely manner
3. Maintain safe work area	3.1 Identify risks to personal wellbeing which may affect safe performance in the workplace and put strategies in place to prevent them 3.2 Maintain a tidy and clean personal work area 3.3 Identify and follow safety signs and symbols 3.4 Identify and address or report situations that may endanger self or other workers
4. Respond to emergency situations	4.1 Identify and follow emergency procedures 4.2 Recognise emergency situations and take required action, within scope of individual responsibility 4.3 Seek assistance from colleagues and other authorities where appropriate

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AGFCMN103A Demonstrate care and apply safe practices at work.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCMN103 Demonstrate care and apply safe practices at work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- communicate effectively with others as required when following safety procedures
- identify and apply work health and safety requirements applicable to own work
- interpret the meaning of safety signs and symbols
- recognise workplace hazards
- identify control measures used in the workplace
- apply procedures for reporting workplace hazards, incidents and injuries
- follow emergency procedures
- conduct housekeeping in work area
- use personal protective equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- appropriate housekeeping and safety standards
- personal protective clothing and equipment relevant to job and job context
- procedures related to work health and safety to be followed in work area
- workplace equipment, materials and housekeeping equipment, and processes and precautions for their use
- basic principles of risk management
- common known workplace hazards and measures for controlling risks
- potential consequences of failing to follow safe work practices
- common workplace safety signage and their meanings
- procedures for responding to hazards, incidents and injuries

- workplace emergency response and evacuation procedures
- work health and safety reporting procedures
- roles and responsibilities of work health and safety personnel

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCMN201 Contribute to animal care through work activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify what 'animal care' means in a workplace and how one's own individual responsibilities contribute to animal care as a whole within a specific workplace or industry.

It may or may not include hands-on animal care but more importantly includes being part of a whole system that supports and contributes to animal care.

The unit also includes contributing to animal care through the use of an appropriate mix of technical skills, handling unexpected contingencies in relation to animal care, and reflecting on animal care procedures in order to make improvements to one's own work. All activities are carried out under supervision.

This unit is designed for use in a Pathway qualification or skills set. It should not be used in a qualification that has a direct job outcome.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Common (CMN)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and plan appropriate animal care approach	1.1 Identify workplace approach to working with animals, and describe in relation to work activity 1.2 Identify individual responsibilities in contributing to animal care 1.3 Identify workplace products, services, operations and customers 1.4 Identify safe work practices relevant to work activity 1.5 Identify appropriate capture and restraint requirements and equipment, where required 1.6 Map out animal care strategy based on workplace requirements and individual responsibility, and apply to work activity
2. Contribute to animal care using a mix of technical skills	2.1 Organise food preparation equipment according to task needs 2.2 Recognise common animal behaviours for the species and take appropriate action 2.3 Care for animals and feed and water according to animal welfare standards and health and safety procedures and standards 2.4 Identify tools and equipment and use safely and according to enterprise requirements 2.5 Accurately count stock levels as required 2.6 Groom animals according to enterprise and animal welfare policy as required
3. Work with others and handle unexpected contingencies	3.1 Respond to requests that effect work activity and animal care courteously, clearly, professionally and efficiently 3.2 Seek assistance with issues relating to animal care from other staff when required and in a timely manner 3.3 Keep key personnel informed of progress of animal care activity and provide clear explanations regarding issues in regards to animal care 3.4 Identify and report on physical and behavioural hazards
4. Reflect on animal care procedures	4.1 Reflect on personal performance in relation to working with animals and discuss possible improvements with supervisor 4.2 Apply improvements to work practice 4.3 Identify possible improvements to animal care procedures and discuss with key personnel

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AGFCMN201A Contribute to animal care through work activities.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCMN201 Contribute to animal care through work activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply basic principles of animal ethics and welfare
- adapt and modify activities depending on differing workplace contexts and environment
- apply animal-observation skills
- apply relevant industrial or legislative requirements
- identify and use equipment, tools and other technology required to complete workplace tasks
- follow relevant work health and safety and environmental protection procedures and requirements
- identify species using common names
- interpret and follow a designated work plan or set of instructions for a job
- keep required records of workplace activities
- plan a daily routine to complete required workplace tasks
- applying technical skills in animal care including:
 - preparing and providing food and water
 - grooming
 - counting stock
- recognising common animal behaviours and determining required response
- recognise and adapt appropriately to cultural differences in the workplace, including modes of behaviour and interaction with staff and others
- recognise limitations, ask for help and seek clarification or information about work requirements and procedures
- demonstrate appropriate initiative to deal with problems or refer them where appropriate to relevant person, and complete tasks
- apply time-management skills

- use basic interpersonal and communication skills, including listening, questioning and receiving feedback
- use routine capture and restraint procedures
- work cooperatively and collaboratively with others to complete tasks

Knowledge Evidence

The candidate must demonstrate knowledge of:

- basic principles of animal ethics and welfare
- codes of practice relating to work requirements
- diseases and pests, disease prevention and routine health care
- feeding and watering procedures
- hazards in the workplace
- health and safety requirements relating to care of animals
- capture and restraint procedures
- techniques for grooming animals
- common animal behaviours and appropriate responses
- quarantine requirements
- terminology relevant to animal care

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCMN202 Contribute to work activities to produce food

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit covers the skills and knowledge needed to contribute to work activities that help to produce food. Food in this context refers to product from animal, seafood and plant sources. Producing food may involve hands-on activities, such as seeding, weeding, hoeing and feeding stock (fish or animals), as well as post-harvest activities. It includes being part of a whole system that supports and contributes to producing food.

This unit is designed for use in a Pathway qualification or skills set. It should not be used in a qualification that has a direct job outcome.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Common (CMN)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and plan appropriate activities	1.1 Identify workplace approach to producing food and describe in relation to work activity 1.2 Identify individual responsibilities in contributing to producing

Element	Performance criteria
	food 1.3 Identify workplace products, services, operations and customers 1.4 Identify safe work practices relevant to work activity 1.5 Plan and implement activities to meet workplace requirements
2. Use an appropriate mix of technical skills	2.1 Prepare machinery, equipment and tools required to conduct work, and use safely and in accordance with work procedures 2.2 Apply technical skills to support food production and supply 2.3 Handle produce in a way that minimises damage 2.4 Maintain temperature of produce at appropriate levels 2.5 Clean, maintain and sort machine and equipment according to manufacturer or workplace specifications 2.6 Apply safe work practices to food production activities 2.7 Conduct housekeeping in work area 2.8 Complete workplace documentation
3. Contribute to postharvest treatment of produce where required	3.1 Apply post-harvest treatments where relevant 3.2 Grade and label produce where relevant 3.3 Deal with waste material produced during post-harvest handling process, according to supervisor instructions
4. Handle unexpected contingencies	4.1 Respond to requests that effect work activity courteously, clearly, professionally and efficiently 4.2 Seek assistance with issues relating to work from other staff when required and in a timely manner 4.3 Keep key personnel informed of work progress and provide clear explanations regarding issues 4.4 Identify and report on physical and behavioural hazards
5. Reflect on procedures used to produce food or plants	5.1 Reflect on personal performance and discuss possible improvements with supervisor 5.2 Apply improvements to work practice 5.3 Identify possible improvements to food production procedures and discuss with key personnel

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AGFCMN202A Contribute to work activities to produce food.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCMN202 Contribute to work activities to produce food

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- adapt and modify activities depending on differing workplace contexts and environments
- apply relevant industrial or legislative requirements
- apply technical skills to support food production, including one or more of:
 - seeding
 - weeding
 - hoeing
 - feeding stock (fish or animals)
 - packing produce
- handle produce safely and according to workplace requirements
- follow enterprise requirements for market specification of products
- follow relevant food safety, work health and safety and environmental protection procedures and requirements
- grade, label and treat produce according to enterprise and customer specifications
- identify and use equipment, tools and other technology required to complete workplace tasks
- interpret and follow a designated work plan or set of instructions for a job
- maintain required records of workplace activities
- maintain work area housekeeping standards
- monitor environment of storage facility
- plan a daily routine to complete required workplace tasks
- recognise and adapt appropriately to cultural differences in the workplace, including modes of behaviour and interaction with staff and others

- recognise limitations, ask for help and seek clarification or information about work requirements and procedures
- demonstrate appropriate initiative to deal with problems or refer them where appropriate to relevant person
- use appropriate techniques to solve or report problems identified when completing work tasks
- use basic interpersonal and communication skills, such as listening, questioning and receiving feedback
- use required machinery and equipment appropriately
- work cooperatively and collaboratively with others to complete tasks

Knowledge Evidence

The candidate must demonstrate knowledge of:

- handling requirements for produce
- enterprise storage facilities and their maintenance
- enterprise quality procedures
- food safety regulations
- humidity levels and their effect on quality of produce
- hygiene issues in handling and storing horticultural, agricultural and seafood products intended for human consumption
- industry standards for grading and labelling
- post-harvest treatments for various horticultural, agricultural and seafood products
- temperature settings within storage facilities
- relevant storage methods
- correct storage temperatures for a range of produce
- safe work practices relevant to work activities
- housekeeping standards and practices
- procedures for one or more of:
 - seeding
 - weeding
 - hoeing
 - feeding stock (fish or animals)
 - packing produce
- operating and cleaning procedures for required machinery, equipment and tools

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCOM201 Assess and receive raw materials for composting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to receive green waste for processing at a compost facility, including measuring quantity for billing and assessing material quality for acceptability against specified enterprise requirements.

It applies to an employee of an enterprise engaged in commercial-scale composting operations.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Composting (COM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Organise for work	1.1 Confirm specifications for raw materials 1.2 Select hand tools and check for serviceability 1.3 Identify, assess and report existing and potential hazards to health and safety 1.4 Use, maintain and store suitable personal protective equipment
2. Receive raw materials	2.1 Recognise and assess raw materials against acceptance criteria 2.2 Reject non-conforming materials 2.3 Note and report non-conformances 2.4 Estimate and record raw materials quantity 2.5 Calculate fee and charge to customer based on raw material type and quantity 2.6 Record fee payment and provide receipt
3. Unload raw materials	3.1 Give drivers directions for unloading at a specific location 3.2 Provide unloading assistance as required 3.3 Inspect and assess raw materials against specified acceptance criteria 3.4 Reject unacceptable materials 3.5 Note and report unacceptable materials 3.6 Identify and monitor designated unloading areas to ensure compliance with unloading instructions, containment and segregation of materials and availability of storage capacity
4. Remove contaminants and stockpile acceptable raw material	4.1 Remove physical unacceptable materials from raw materials 4.2 Segregate, stockpile and contain or otherwise manage raw materials in appropriate areas 4.3 Monitor raw material stockpiles to ensure adequate available storage capacity and containment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCOM201A Assess and receive raw materials for composting.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCOM201 Assess and receive raw materials for composting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- inspect raw materials for contamination and acceptability against established criteria
- measure quantity for billing
- operate a weighbridge
- provide clear directions to drivers entering site
- receive raw material for processing at a compost facility
- record raw material quantity and calculate fee

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of composting raw material assessment
- characteristics of a range of raw green waste
- enterprise policies and procedures including workplace health and safety procedures
- safety risks to self and product posed by contaminants in raw materials and products
- standard risk control measures used in the industry to minimise risk associated with handling raw materials and products

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCOM202 Recognise and respond to fire emergencies on a composting site

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prevent, recognise and provide first response to fire in material or compost piles.

This unit applies to a yard or general hand under supervision of an operations team leader or site foreman and fire brigade personnel.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Composting (COM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Recognise a fire risk and undertake preventative actions	1.1 Obtain and clarify procedures for first response to fire 1.2 Identify location of firefighting equipment and check to ensure all equipment is available and ready for use 1.3 Recognise and report conditions that lead to fire and signs of fire 1.4 Observe enterprise procedures for emergencies 1.5 Implement temperature and moisture management procedures
2. Recognise and initiate response to fire	2.1 Identify nature and extent of fire 2.2 Report fire details and raise alarm 2.3 Implement preparations for water availability for fire brigade attendance 2.4 Identify hazards associated with fire emergency and take action to minimise risks to self, others and property 2.5 Secure immediate area of the emergency 2.6 Remove machinery and equipment from area where safe to do so 2.7 Select and set up firefighting equipment as directed by fire brigade personnel
3. Attack fire under direction of fire brigade	3.1 Apply appropriate firefighting and containment media in a safe and coordinated manner 3.2 Use firefighting methods and tactics as directed 3.3 Report and act upon potential for change in fire behaviour to fire brigade and supervisor 3.4 Identify and maintain clear line of retreat at all times 3.5 Observe conditions at fire and report their effects on fire development 3.6 Report significant changes to status of fire to supervisor and fire brigade
4. Carry out post-fire activities	4.1 Identify and control smouldering fire residuals according to fire brigade directions 4.2 Undertake break-up of windrows, buildings or structures 4.3 Remove spent fuel or burnt compost and debris 4.4 Undertake activities to complement post-fire operations and prevent further damage 4.5 Clear and clean site and equipment 4.6 Provide assistance to fire brigade to complete and record appropriate incident information 4.7 Report effectiveness of tactics employed 4.8 Seek feedback on performance and note improvements for future action

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCOM202A Recognise and respond to fire emergencies on a composting site.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCOM202 Recognise and respond to fire emergencies on a composting site

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow emergency procedures
- operate pumps and set up water delivery system
- read and interpret site operation plans or maps
- recognise and report fire risks and incidents

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for recognising fire emergencies
- characteristics and operation of joints, hoses, valves and sprinkler components
- work health and safety and emergency management plans as part of enterprise operating procedures
- fire behaviour, extinguishing media and operating firefighting equipment
- fire control tactics and techniques, fire hazards and safety techniques
- operation of pumps
- pile size, moisture and porosity as causes of combustion
- procedures for safely using power and hand tools
- standard risk control measures used in the industry to minimise risk associated with fire response

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCOM203 Recognise raw materials, production processes and products on a composting site

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recognise raw materials and products. It applies to the employee of an enterprise engaged in commercial-scale composting operations.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Composting (COM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Recognise, handle and locate raw materials on site	1.1 Recognise composting potential of raw materials 1.2 Compare characteristics of raw materials with site operating guidelines

Element	Performance criteria
	1.3 Recognise potential hazards handling raw materials 1.4 Confirm initial handling requirements, stockpiling location and arrangement from site operating guidelines 1.5 Identify and record contaminants in raw materials 1.6 Confirm physical contaminant handling, stockpiling location and arrangement from site operating guidelines
2. Recognise and locate key processes and technologies	2.1 Confirm composting technologies and methods, key process control steps and locations from site map 2.2 Identify windrows or vessels by batch or code numbers 2.3 Confirm machinery, plant and equipment from site operating guidelines
3. Recognise, handle and locate compost and other products on site	3.1 Describe intended use of compost and or products 3.2 Compare site operating guidelines with the handling risks and potential or common contaminants that characterise different products 3.3 Recognise potential hazards in handling products 3.4 Confirm handling requirements, stockpiling location and arrangement from site operating guidelines 3.5 Recognise and avoid potential for contamination of products 3.6 Match batching sheets or other product formulas to end product 3.7 Identify and report contaminants present in products 3.8 Identify physical contaminant handling, stockpiling location and arrangement on site
4. Identify and carry out site maintenance requirement	4.1 Identify and undertake site maintenance requirements 4.2 Identify traffic access routes and traffic and pedestrian safety rules from site operating plan 4.3 Maintain vehicle access routes 4.4 Identify and maintain machinery and site security requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCOM203A Recognise raw materials, production processes and products on a composting site.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCOM203 Recognise raw materials, production processes and products on a composting site

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify, confirm, locate, handle and maintain raw materials, products and physical contaminants on site
- implement site machinery and traffic management plans
- maintain site and machinery security requirements
- maintain site arrangement and segregation of materials and products to avoid contamination
- read and follow batch numbers and codes, and site operating plan
- recognise and locate key process control stages of production cycle and associated machinery on site

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for raw material recognition
- characteristics of a range of raw materials
- company policies and procedures, including workplace health and safety requirements
- key process control stages critical to consistent quality in compost production
- overview of systems and technologies used in compost production, particularly as relevant to workplace
- range and characteristics of products
- safety risks associated with vehicles and machinery movement on site
- safety risks to self and product posed by contaminants in raw materials and products
- standard operating procedures to minimise risk associated with handling raw materials and products

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCOM301 Operate compost processing plant, machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate compost processing plant, machinery and equipment to prepare raw materials to produce compost products.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Composting (COM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Organise plant, machinery and equipment operations	1.1 Review job sheet or work order to identify operating requirements 1.2 Organise equipment, materials and personnel requirements 1.3 Select, use, maintain and store personal protective equipment

Element	Performance criteria
	(PPE)
2. Prepare plant, machinery and equipment for use	2.1 Check service log to ensure service requirements have been maintained 2.2 Check communication equipment, safety devices, lighting and alarm systems for correct operation 2.3 Carry out routine pre-operational checks 2.4 Check and calibrate operational systems for correct operation 2.5 Identify and safety tag faulty plant, machinery or equipment safety 2.6 Identify and risk assess hazards associated with plant, machinery and equipment operation
3. Start and operate plant, machinery and equipment	3.1 Check operational area and inform personnel of start of operation 3.2 Operate plant, machinery and equipment in a safe and controlled manner 3.3 Monitor input materials and identify non-conformances 3.4 Monitor processing outputs and adjust plant operation to meet job specifications 3.5 Identify, rectify and report out-of-specification product or process outcomes to maintain the process within specification
4. Shut down plant, machinery and equipment	4.1 Shut down plant, machinery and equipment 4.2 Remove debris and contaminants from plant, machinery and equipment to ensure safe and efficient operation 4.3 Clean, secure and store plant, machinery and equipment 4.4 Tag or lock unsafe plant, machinery or equipment
5. Maintain records	5.1 Maintain plant, machinery and equipment operational records 5.2 Record maintenance, damage, malfunctions or irregular performance, and unsafe plant, machinery or equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCOM301A Operate compost processing plant, machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCOM301 Operate compost processing plant, machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine appropriate operating methods
- implement work and equipment maintenance plans
- monitor input materials and report non-conformances
- monitor outputs and report out-of-specification product
- perform shutdown procedures and maintain records
- select and use a range of compost processing plant, machinery and equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for operating compost processing plant
- enterprise guidelines associated with operation of plant, machinery and equipment
- environmental licenses, impacts and procedures identification of contaminants
- legislation, regulations and codes of practice with regard to operator licensing, roads and traffic requirements
- legislation, regulations and codes of practice with regard to workplace health and safety and the use and control of hazardous substances, such as fuel and recipe inputs
- lock-out and tag-out procedures for plant, machinery and equipment
- manufacturer specifications for servicing of plant, machinery and equipment
- operating principles and operating methods for plant, machinery and equipment
- potential risks and hazards associated with operation of plant, machinery and equipment
- principles of weight distribution with regard to load-shifting and machinery movement
- procedures for cleaning, securing and storing machinery, equipment and materials

- product types and characteristics
- raw material types and characteristics
- workplace health and safety legislation, codes of practice and specific hazards such as hazardous substances and exposure to organic micro particles

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCOM302 Dispatch materials and composted product

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to organise and dispatch bagged and bulk compost products from a site.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in selecting, allocating and using available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Composting (COM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Organise for loading and dispatch of product	1.1 Obtain and review dispatch order 1.2 Check product dispatch requirements against product and transport availability 1.3 Confirm product dispatch with contractor or driver 1.4 Organise machinery and labour for dispatch

Element	Performance criteria
	1.5 Identify and control hazards 1.6 Fit personal protective equipment (PPE)
2. Coordinate loading of product	2.1 Provide instructions to ensure safe and efficient loading 2.2 Monitor loading site to ensure compliance with loading instructions, containment of product within designated loading area and availability of space for loading 2.3 Measure and load product into dispatch vehicle 2.4 Check load to ensure that it is covered, contained or secured 2.5 Weigh load to ensure dispatch order is met
3. Clean up loading area	3.1 Clean loader and vehicle between loads 3.2 Monitor area and equipment for cleaning and clearing
4. Document product dispatch	4.1 Record dispatch information and provide information to sales office

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCOM302A Dispatch materials and composted product.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCOM302 Dispatch materials and composted product

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- load product for dispatch
- measure product quantity for dispatch
- organise a loading site
- organise and coordinate loading
- clean up loading area
- document product dispatch

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of product dispatch
- bulk density and moisture effects on weight and volume
- customer service
- measurements, including weights, volumes and bucket volumes
- provisions of the Trade Practices Act in regard to weights and measurements of bulk product
- types and performance characteristics of vehicles and loading equipment used in a composting enterprise
- workplace health and safety requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCOM303 Operate a compost bagging process

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a compost bagging process.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

This unit must be read in conjunction with the National Guidelines for Occupational Health and Safety Competency Standards for Operation of Load-Shifting Equipment and Other Types of Specified Equipment [NOHSC: 7019 (1992)]. Where work requires the use of load-shifting equipment, appropriate training/certification must be provided according to state and territory safety and licensing requirements.

Pre-requisite Unit

Nil.

Unit Sector

Composting (COM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Organise for bagging operations	1.1 Identify product bagging requirements from job sheet 1.2 Confirm product is available to meet job requirements

Element	Performance criteria
	1.3 Identify and organise equipment, materials and personnel requirements for bagging operations 1.4 Select, use, maintain and store personal protective clothing (PPE) and equipment
2. Prepare bagging plant for use	2.1 Fit and adjust machine components and related attachments 2.2 Fit and adjust materials for bag 2.3 Check safety devices and alarm systems for correct operation 2.4 Carry out routine pre-operational checks 2.5 Check, clean and calibrate operational systems and enter batch number and operating parameters 2.6 Identify, report and safety tag faulty plant or machinery 2.7 Obtain and position product to be bagged
3. Start and operate bagging plant	3.1 Load product into the bagging plant hopper in required quantities 3.2 Start bagging plant using correct sequence 3.3 Operate bagging plant and monitor for performance and efficiency 3.4 Monitor materials and identify and handle non-conformances 3.5 Monitor outputs and adjust plant to meet job specifications 3.6 Report out-of-specification product or process outcomes and take action as directed 3.7 Label, palletise or stack and wrap product
4. Shut down bagging plant	4.1 Undertake bagging plant and machinery shut-down procedures 4.2 Carry out routine maintenance of bagging plant and machinery 4.3 Clean bagging plant and equipment 4.4 Report and tag or lock out unsafe plant or equipment 4.5 Maintain bagging plant operational records
5. Check product to confirm readiness for distribution	5.1 Transport product to holding area with labels and bar codes clearly visible 5.2 Inform supervisor of product readiness for dispatch 5.3 Check product temperature during storage and report out-of-range readings

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCOM303A Operate a compost bagging process.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCOM303 Operate a compost bagging process

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out routine maintenance on plant and equipment
- organise bagging operations
- prepare, start, operate and shut down a bagging plant
- monitor compost inputs
- monitor compost production against compost specifications
- monitor the temperature of bagged compost
- select and use various features and controls of a range of bagging plant
- ensure product readiness for distribution

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for operating a bagging process
- characteristics of product that is fit for bagging
- effect of variation in inputs which may include ingredient quality and condition, packaging components and consumables, and/or services on process performance
- emergency and routine shutdowns and procedures to follow in the event of a power outage
- environmental legislative and enterprise requirements
- equipment cleaning requirements
- flow of this process and effect on downstream processes
- hazards and controls
- inspection or test points in the process and related procedures and recording requirements
- lock-out and tag-out procedures and responsibilities

- methods used to monitor the process
- operating principles of the equipment which may include:
- operational understanding of main equipment components, status and purpose of guards, equipment operating capacities and applications
- packaging quality and seal integrity
- principles of the bagging process
- product and batch changeover procedures
- product quality and hygiene
- purpose and location of sensors and related feedback instrumentation
- purpose of packaging, coding requirements and related legal requirements, including product weight

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCOM401 Develop a composting recipe

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and mix raw materials of known characteristics in specified proportions for composting.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Composting (COM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and characterise raw materials	1.1 Identify raw materials against established enterprise criteria 1.2 Enter raw material characteristics into compost recipe calculator to achieve a balanced recipe 1.3 Take samples of material for analysis where raw material identity

Element	Performance criteria
	<p>or characteristics are uncertain</p> <p>1.4 Determine receivable and handling requirements of raw materials</p>
2. Establish production objectives	<p>2.1 Develop product specifications for identified markets using product performance data and enterprise records</p> <p>2.2 Identify raw material combinations that meet market requirements</p>
3. Calculate compost recipe	<p>3.1 Record raw material characteristics in compost recipe</p> <p>3.2 Specify raw material ratios by weight in resulting compost recipe</p> <p>3.3 Determine raw material pre-processing requirements, volumes of compost upon formation and compost production plan</p> <p>3.4 Review composting batch management procedures and document variations to management procedures as a new procedure</p> <p>3.5 Estimate and document compost production schedule</p> <p>3.6 Confirm compatibility of compost recipe and production schedule against documented customer requirements</p> <p>3.7 Quantify density of pre-processed raw materials and translate weight-based recipe into volume-based recipe for production</p> <p>3.8 Record volumetric compost recipe and production procedures as operational batch or bucket recipe and procedures</p>
4. Validate compost recipe	<p>4.1 Prepare and mix raw materials to form feedstock for composting</p> <p>4.2 Manage composting batch according to enterprise procedure</p> <p>4.3 Monitor composting process for efficiency in relation to estimated production schedule and enterprise requirements</p> <p>4.4 Monitor environmental and health and safety aspects and impacts</p> <p>4.5 Identify faults, variations or problems carry out remedial action</p> <p>4.6 Sample and test material to determine completion of process</p> <p>4.7 Evaluate end product quality against product specifications</p> <p>4.8 Revise compost recipe, production schedule and procedures</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCOM401A Develop a composting recipe.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCOM401 Develop a composting recipe

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- calculate a compost recipe that is consistent with the technology and method available from combinations of raw materials
- document compost production plan consistent with plant capabilities and site constraints
- produce a compost recipe that will achieve defined product specifications

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of compost recipes
- control of hazards in handling raw materials and composting materials
- processing duration required for various raw materials
- range of commercial compost-based products
- raw materials and their characteristics
- relationship between key compost recipe variables and compost production
- systems, technologies and methods in compost production

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCOM402 Plan and schedule compost production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and schedule compost production. This unit applies to product managers at a commercial-scale composting facility.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Composting (COM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish production requirements	1.1 Quantify production requirements from raw material supply contracts and receipt data, sales and market trend information, and corporate marketing plan and strategy

Element	Performance criteria
	1.2 Identify conditions that affect production requirements with management, sales and marketing personnel 1.3 Estimate production requirements to meet customer requirements and site and equipment capacity in consultation with management, sales and marketing personnel 1.4 Monitor environmental and work health and safety impacts for compliance with enterprise plan and licence conditions 1.5 Document and submit production plan for management approval 1.6 Confirm availability of personnel, machinery and equipment for compost production 1.7 Develop contingency plan for oversupply or undersupply of raw material or product
2. Schedule production to meet requirement	2.1 Calculate batch types and volumes of compost-based products 2.2 Obtain laboratory and field test data of compost materials during and after production 2.3 Monitor and adjust production schedule according to field and laboratory test results 2.4 Make product available to customer in required quantities, to required quality and at required time

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCOM402A Plan and schedule compost production.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCOM402 Plan and schedule compost production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop and document contingency plans for compost production
- document a compost production plan consistent with enterprise capabilities and constraints
- identify and interpret relevant information and conditions that could influence compost production
- make product available to customers as required
- produce and document a compost production schedule

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of compost production scheduling
- control of hazards in handling raw materials and product
- processing duration for various raw materials
- raw materials and their characteristics
- relationship between key compost recipe variables and compost production
- systems, technologies and methods in compost production

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCCOM501 Identify and secure raw materials supply for compost production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify and secure raw materials supply for compost production. This unit applies to commercial composting facility managers.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Composting (COM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine characteristics of raw	1.1 Identify commercial objectives, product range and specifications, compliance requirements and enterprise constraints

Element	Performance criteria
materials required	1.2 Review raw material supplies for suitability for compost products 1.3 Identify complementary raw material characteristics and quantities to manufacture defined products 1.4 Specify and document characteristics and quantities of additional complementary raw materials 1.5 Identify complementary or substitute raw material types consistent with requirements
2. Identify and prioritise raw materials required for production	2.1 Identify and assess raw material options to determine priority according to product range and specifications 2.2 Obtain samples of raw materials from sources of supply and evaluate and confirm risks 2.3 Submit changes to raw materials and product specifications for incorporation into business and marketing plan and strategy
3. Secure and maintain access to raw materials	3.1 Gain management approval for securing preferred raw materials 3.2 Document specifications for raw material characteristics and acceptability criteria for receipt for inclusion in supply contract 3.3 Determine preferred suppliers of raw materials 3.4 Negotiate and secure supply contracts 3.5 Maintain communication with suppliers to support reliable and secure supply of consistent quality raw materials
4. Prepare for receipt and processing of raw materials	4.1 Document and include receipt, containment, handling and management requirements into procedures and training 4.2 Confirm availability of site infrastructure, plant and equipment requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCCOM501A Identify and secure raw materials supply for compost production.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCCOM501 Identify and secure raw materials supply for compost production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess characteristics of different raw materials as relevant to manufacture of particular products according to compliance requirements
- define raw material specifications and acceptance criteria
- Identify raw materials and product specifications to incorporate into business and marketing plans and strategies
- develop criteria and identify raw material requirements from corporate documents
- draft a supply contract with inclusions as negotiated
- support reliable and secure supply of consistent quality raw materials
- review processes, plant and site capabilities against requirements for receiving and processing raw materials

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for securing raw materials
- capabilities and limitations of site and plant
- environmental and site licenses and associated risks and restrictions
- potential risks and hazards related to various raw materials
- raw material assessment and characterisation
- raw materials used in compost production
- regulations and standards governing raw materials
- standard forms of supply contracts
- technical and industry literacy to source and interpret test data

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC DER401 Handle, store and grade deer velvet

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to handle store and grade velvet

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to activities performed by velvet producers or their staff in accordance with the requirements of the National Velvet Accreditation Scheme (NVAS).

Pre-requisite Unit

Nil.

Unit Sector

Deer (DER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Handle and store velvet	1.1 Check equipment required for handling, storing and grading velvet is serviceable and functioning correctly 1.2 Handle harvested velvet according to food safety and NVAS requirements 1.3 Clean, weigh and store individual pieces of velvet according to industry quality assurance procedures and NVAS criteria

Element	Performance criteria
	1.4 Identify velvet by using NVAS tags or NVAS Statutory Declaration Forms 1.5 Implement enterprise work health and safety and biosecurity policies
2. Grade and sell velvet	2.1 Identify and apply factors affecting the grade of velvet in grading process 2.2 Use industry-accepted grading specifications 2.3 Transport frozen velvet according to industry quality assurance procedures 2.4 Sell velvet through national pool or to private clients 2.5 Review sales and personal grading assessments and compare with grades and feedback provided by professional graders

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC DER401A Handle, store and grade deer velvet.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDER401 Handle, store and grade deer velvet

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- handle and store velvet carefully according to food safety legislation
- accurately and consistently grade velvet using industry grading specifications and record grading results
- sell velvet and review the grading and marketing of the product
- implement enterprise work health and safety and biosecurity policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- National Velvet Accreditation Scheme (NVAS)
- food safety requirements for velvet
- grading specifications
- requirements for handling and storing velvet to maximise quality
- enterprise work health and safety and biosecurity policies

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDER501 Comply with deer industry national velvet accreditation requirements

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement the National Velvet Accreditation Scheme (NVAS) to an enterprise.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes.

This unit applies to activities performed by velvet producers or their staff in accordance with the requirements of the National Velvet Accreditation Scheme.

Pre-requisite Unit

Nil.

Unit Sector

Deer (DER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Demonstrate knowledge of deer velvet industry requirements	1.1 Identify and apply relevant legislation and codes of practice to deer farm activities and in particular to deer velveting 1.2 Identify and implement industry accreditation and quality assurance schemes

Element	Performance criteria
	1.3 Establish and maintain relationships with external parties 1.4 Establish and maintain a bona fide legal relationship with a registered veterinarian 1.5 Establish and maintain record keeping system
2 Apply knowledge of industry-accredited deer velveting process	2.1 Handle animals according to work health and safety, biosecurity and animal welfare requirements 2.2 Select and use restraint facilities and equipment suitable for handling animals for velvet harvesting 2.3 Establish and follow stag and buck management process before and after velveting 2.4 Determine deer antler growth rates and optimum time for cutting 2.5 Identify drugs and equipment used in velveting and calculate dosage rates 2.6 Ensure velvet for sale or export are identified using NVAS tags or NVAS Statutory Declaration Forms 2.7 Establish human emergency response procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency. Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDER501A Comply with deer industry national velvet accreditation requirements.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDER501 Comply with deer industry national velvet accreditation requirements

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply the NVAS to own enterprise
- establish and maintain a bona fide client-veterinarian relationship
- apply relevant state and territory legislation and industry codes of practice as they relate to own enterprise
- demonstrate knowledge of legal aspects of possession and use of approved drugs
- establish systems to satisfy the Deer Industry Association of Australia's (DIAA's) quality assurance program
- implement enterprise work health and safety, biosecurity and animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- animal welfare issues and legislation relating to velvet antler harvesting
- basic and applied principles of anatomy, physiology, pain control and pharmacology relevant to velvet harvesting
- DIAA's NVAS and quality assurance program
- definitions and requirements with respect to veterinary supervision and legal responsibilities of deer producers and veterinarians
- drug withholding periods and tissue residues
- management of deer before and after velveting
- nature of a bona fide legal relationship
- principles and process of velveting, including potential complications
- relevant action of drugs used for velveting on body function, and detrimental results of drug administration

- relevant legislation relating to restricted drugs
- work health and safety legislation, codes of practice and enterprise requirements

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC DER502 Harvest deer velvet

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to harvest deer velvet.

This unit applies to people who harvest deer velvet. All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

All work is carried out under the supervision of an attending veterinarian following National Velvet Accreditation Scheme (NVAS) procedures for harvesting deer antler.

Pre-requisite Unit

Nil.

Unit Sector

Deer (DER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for velveting	1.1 Check facilities, materials and equipment are available, serviceable and functioning and contribute to a safe, hygienic and stress free environment for animals and operators 1.2 Arrange veterinary supervision and drugs, equipment, emergency equipment and personal protective equipment are ready for use 1.3 Draft and restrain animals selected for velveting according to

Element	Performance criteria
	animal welfare and work health and safety policies
2. Harvest velvet	2.1 Determine volume of analgesic or anaesthetic drug for each animal and administer under supervision of attending veterinarian 2.2 Remove antler using hygienic techniques and appropriate standards 2.3 Ensure human and animal emergency procedures are ready for implementation 2.4 Collect information during harvesting process for annual return/audit 2.5 Tag velvet for identification using NVAS tags or NVAS Statutory Declaration Forms, and cross-reference to the animal velveted to allow for full trace back
3. Complete harvesting process	3.1 Release animal into recovery area and monitor for adverse reactions and take appropriate action as required 3.2 Clean velveting area and equipment and dispose of waste in line with enterprise biosecurity and environmental policies 3.3 Dispose of hazardous substances and used equipment according to legislative requirements and codes of practice 3.4 Store equipment, record drug usage and place remaining drugs in a secure facility 3.5 Follow industry procedures in the event of post-velveting death

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC DER502A Harvest deer velvet.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDER502 Harvest deer velvet

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- safely handle and restrain deer including dealing with aggressive or difficult animals
- administer drugs to deer under supervision of a registered veterinarian
- velvet unassisted a minimum of three deer under supervision of a registered veterinarian
- comply with the National Velvet Accreditation Scheme (NVAS) and quality assurance program of the Deer Industry Association of Australia (DIAA)
- manage deer effectively before, during and after velveting
- implement emergency response procedures when required
- develop and maintain effective working relationships with a range of organisations operating in the deer industry
- communicate with work team using industry standard terminology
- implement enterprise work health and safety, biosecurity and animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- animal welfare legislation and issues
- definitions of, and requirements with respect to, veterinary supervision and legal responsibilities of deer producers and veterinarians
- drug legislation relating to deer velvet harvesting
- food safety requirements relating to drug residues and withholding periods, and the hygienic handling of velvet
- management of deer before and after velveting
- surgical velveting procedures
- NVAS and quality assurance program of the Deer Industry Association of Australia (DIAA)

- enterprise work health and safety, biosecurity and animal welfare policies

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDES501 Design sustainable landscapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design for improvement of long-term ecological sustainability of landscapes, land under production, land areas in business use, natural resource areas and recreational amenity spaces essential for long-term economic and cultural viability.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Design (DES)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess requirements	1.1 Consult client to establish a brief for the design

Element	Performance criteria
for sustainable land use	<p>1.2 Research and identify legislative and regulatory requirements and document in the improvement plan</p> <p>1.3 Identify specific requirements for sustainability from the brief, business plan, management plan or policy documentation</p> <p>1.4 Assess the land area for its biophysical factors, biodiversity, historical and cultural attributes, services, site modifications and threats to sustainability</p> <p>1.5 Identify environmental implications of the planned works and, if necessary, report to relevant personnel for further research and recommendations</p>
2. Prepare an integrated design to improve land use	<p>2.1 Develop a concept plan for improvement that reflects client preferences and requirements and takes into account heritage issues, site factors and any identified environmental requirements</p> <p>2.2 Present concept plan to the client or land owner for discussion and approval</p> <p>2.3 Consult other professionals to assist in research and planning of works in areas of specific technical expertise, energy efficiency and use, current and developing technologies and legislative and enterprise requirements</p> <p>2.4 Consider design of products, materials and finishes that are efficient, low risk and cyclic and confirm availability from a local source</p> <p>2.5 Evaluate resources, materials, equipment and machinery required for the works for their impact on the sustainable use of the site</p> <p>2.6 Select plants and soils for their integrated roles for the designed outcomes in the specific site conditions, system of irrigation and environmental parameters</p> <p>2.7 Review environmental conditions for a functional analysis of the site and the planned design</p> <p>2.8 Prepare a detailed plan or design</p> <p>2.9 Present plan or design to the client or land owner for acceptance</p>
3. Plan the implementation into the design	<p>3.1 Outline staged implementation and development with appropriate access for future works</p> <p>3.2 Incorporate timelines for development, taking into account the needs of the implementation plan and principles of sustainability</p> <p>3.3 Determine schedules for planting and post-planting care in accordance with the requirements of the plant species, site conditions and any other planning requirements</p> <p>3.4 Integrate protection of water resources, riparian zones, specified trees and existing vegetation into the design plan</p> <p>3.5 Review chemical, non-chemical, ameliorant application and waste disposal procedures and processes to select designs of minimal</p>

Element	Performance criteria
	environmental consequence and potential contamination of soils and ground water 3.6 Review implementation outline for integration of approach to land and water management
4. Audit the implementation for sustainability of use	4.1 Ensure that all work materials, waste and debris from site works have low risk and energy sustainable methods 4.2 Sample and test soil and ground water quality and implement recommendations 4.3 Confirm soil conservation measures and erosion sediment controls 4.4 Verify protection measures for specified trees, protected flora and fauna and areas and objects of cultural significance 4.5 Maintain or improve biodiversity, heritage, cultural and historical attributes, soil and water quality 4.6 Provide client with a report according to the brief or contractual requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDES501A Design sustainable landscapes.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDES501 Design sustainable landscapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess a land area for sustainable use
- conduct soil and water quality tests
- design for the health and sustainability of soils and plants
- implement sustainable practices
- interpret specifications and plans
- outline an integrated approach to land and water management
- prepare a detailed plan or design, specifications and where appropriate a proposal or quotation for sustainable land improvement
- consult with clients
- protect water resources, riparian zones and vegetation in a development area
- research, interpret and apply appropriate legislation and regulations
- select plants and soils for their integrated functional roles
- use a range of graphic techniques for illustrating landscape design components

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of designing sustainable landscapes
 - assessment techniques
 - environmental controls and codes of practice applicable to the business and to the improvement works
 - botany, plant physiology, taxonomy and nomenclature
 - identification and selection of soils, growing media, plants, shrubs and trees

- irrigation practices
- legislation and regulations relating to soil and water degradation issues and construction
- specific legislation and regulations for landscape design and development
- specific requirements for sustainability
- surface hydrology
- sustainable land and water use principles and practices applicable in the region
- types, properties and characteristics of a wide range of soils and growing media
- workplace health and safety legislation and regulations

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDES502 Prepare a landscape design

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare a landscape design for a large project on residential, commercial or public open spaces.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Design (DES)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a design brief	1.1 Consult with client to establish the purpose and requirements of design 1.2 Interpret and incorporate relevant architectural designs, styles and

Element	Performance criteria
	details 1.3 Develop an agreed client brief 1.4 Negotiate cost structures and timelines with the client
2. Assess the project site	2.1 Inspect the site of the landscape project 2.2 Record physical elements and features of the site on a base plan 2.3 Assess soil conditions, topography, aspect, existing vegetation and climatic factors and record on a site analysis 2.4 Complete functional analysis of the existing site and record on the base plan 2.5 Assess any other relevant information and record on a base plan 2.6 Assess opportunities and constraints on development including local council and other potential legal requirements
3. Prepare a concept design	3.1 Prepare concept to illustrate location and layout of proposed landscape works according to the design brief 3.2 Consult with the client to establish agreement on options and approaches for design development 3.3 Specify hard landscaping requirements, including irrigation, demolition and removal of existing features and installation of new works 3.4 Compile planting schedules for incorporation into the design plan 3.5 Apply industry standards and consistent graphic styles to the concept design
4. Produce a final design	4.1 Include specifications and notes on the design to assist in interpretation 4.2 Research and apply appropriate landscape construction principles to landscape design according to industry standards 4.3 Finalise and document a detailed design plan according to the design brief, concept design and client consultations using industry standard graphic, text and layout styles

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDES502A Prepare a landscape project design.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDES502 Prepare a landscape design

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess landscape sites
- consult with clients
- design scaled concept drawing and construction plans
- determine survey levels and site grading
- identify and select plants, shrubs and trees
- identify dimensions and qualities of materials
- implement professional practices
- interpret architectural designs and details
- operate Computer-Aided Design (CAD) software and/or draft plans by hand
- specify hard landscaping requirements
- use graphic techniques to industry standards for illustrating landscape design components

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of preparing a landscape project design
 - establishment of site levels
 - landscape construction and engineering principles
 - drafting techniques
 - environmental implications of landscape project works
 - botany, plant physiology, taxonomy and nomenclature
 - how to identify and treat soils
 - plant identification, selection and culture

- work health and safety risk in office and outdoor environments

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDES503 Assess landscape sites

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out a landscape site assessment and develop recommendations.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Design (DES)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Collect and collate initial information	1.1 Consult client and confirm objectives of assessment 1.2 Source and verify site plans and maps 1.3 Identify and acquire required resources

Element	Performance criteria
	1.4 Prepare base plan of the site and relevant surrounds 1.5 Verify location, ownership and site boundaries 1.6 Identify and record current land use and environmental threats and problems 1.7 Identify and record covenants that could affect the project, design or report 1.8 Determine climate and weather conditions from historical data
2. Undertake initial site visit	2.1 Meet site entry conditions and obtain approval if required 2.2 Identify site hazards and assess risks for current visit 2.3 Undertake site orientation 2.4 Identify and record existing on-site and adjacent site features that may impact upon the project, plan or report objectives 2.5 Identify, and measure and record or confirm site dimensions, levels and gradients
3. Compile a site inventory	3.1 Identify soil and growing media types, properties and relevant physical characteristics and record on-site inventory 3.2 Record the species, health, age and location of vegetation 3.3 Locate structural elements and confirm existing services and facilities 3.4 Record the presence, location and extent of other relevant site constraints 3.5 Sample areas of homogeneous soils and growing media to send for testing and analysis of soil content and contamination as requested by client or as required in the brief provided
4. Determine the impact of development for trees on site	4.1 Obtain the consulting arborist report to assess trees on site 4.2 Determine and record tree protection zones 4.3 Document the impact of proposed development on each tree 4.4 Identify trees that are exempt from approval requirements 4.5 Identify and locate on the site plan trees impacted by development, according to regulations applying in the local jurisdiction 4.6 Include trees identified by the consulting arborist report as requiring pruning or removal in a development application
5. Document a site assessment report	5.1 Interpret soil and growing media tests results and analyse for further testing requirements 5.2 Record specific recommendations of remedial action for site problems 5.3 Formulate recommendations for appropriate risk controls of site hazards 5.4 Store and maintain survey and assessment data

Element	Performance criteria
	5.5 Document site information 5.6 Incorporate all relevant data into the assessment report in accordance with client needs and the requirements of relevant legislation and regulations 5.7 Deliver a copy of the report to the client and advise the client of content and implications of the report

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDES503A Assess landscape sites.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDES503 Assess landscape sites

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect and collate information on site features
- consult with and advise clients
- document assessment and recommendations in a site plan and assessment report
- identify vegetation and soils
- interpret and produce plans
- maintain assessment data records
- sample soils and growing media
- verify existing site details

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of assessing landscape sites
 - current land use and environmental threats to and problems with site
 - interpretation of results from assessment and testing
 - local, state and federal regulations
 - measurement and surveying techniques
 - plant nutrition
 - protocols of site access
 - soil and growing media types, structure, texture and soil pH
 - soil chemical and physical properties
 - soil field tests and soil sampling techniques
 - techniques to ameliorate soil properties

- vegetation common within the region, using botanical and regionally accepted common names, age, health and conditions of vegetation

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDES504 Design for construction of landscape features

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design for the construction of landscape features and to develop a final project report.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Design (DES)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Interpret detail architectural and landscape design	1.1 Interpret detail architectural and landscape design drawings for construction features 1.2 Define survey levels and record any site gradients

Element	Performance criteria
drawings	1.3 Construct a small scale model from detail drawings 1.4 Draw detail plans from pre-constructed landscape features, including elevations 1.5 Draw drainage plans for a green site and a developed site to construction standards
2. Design aspects of construction for landscape features in a range of materials	2.1 Develop a concept design for the construction of the selected landscape feature 2.2 Illustrate construction details for landscape features 2.3 Incorporate a range of materials used in the construction of landscape features into the design
3. Specify dimensions, footings and qualities of materials	3.1 Determine the difference in quality of available materials and specify quality criterion in the design 3.2 Specify dimensions, footings and qualities of materials selected 3.3 Determine the consequences and costs involved in using poor quality materials 3.4 Specify the construction standards in the design
4. Develop a design and project report	4.1 Develop a site strategy for the design project 4.2 Identify and document timelines for the project 4.3 Determine and record project costs 4.4 Work with contractors on site to resolve any issues arising 4.5 Develop and document a final design and project report

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDES504A Design for construction of landscape features.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDES504 Design for construction of landscape features

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- calculate project costs
- develop a final design and project report
- draw plans to construction standards
- identify and document project timelines
- interpret detail architectural and landscape design drawings
- liaise with stakeholders, staff and contractors
- select appropriate materials and plants
- specify dimensions, footings and qualities of materials

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of designing for construction of landscape features
 - construction standards
 - drainage issues and the available resources to resolve problems
 - how to select appropriate plants and materials
 - materials available in the marketplace
 - plant specifications for a range of plants appropriate to the design
 - principles of surveying
 - site services, including electrical and water provision
 - stone walling, including gabions
 - the essentials of retaining walls

- the paving process

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRG201 Maintain drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out routine cleaning and maintenance of draining systems.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Drainage (DRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Inspect drainage systems	1.1 Confirm the work to be undertaken 1.2 Check personal protective equipment for serviceability and correct fit 1.3 Identify work health and safety hazards associated with the activity and take appropriate steps to minimise risks to self and

Element	Performance criteria
	others 1.4 Inspect drainage system visually for blockages, leaks and operating faults
2. Maintain system components	2.1 Inspect components for wear or blockage 2.2 Service mechanical equipment 2.3 Replace simple components
3. Remove silt and weed growth	3.1 Clean silt from channels, drains, sumps and crossings 3.2 Remove weed growth 3.3 Flush drainage system 3.4 Observe water flow through channels and from outlets to confirm it is unobstructed
4. Record and report maintenance activities	4.1 Record blockage or leakage by type and location of the section of the system affected 4.2 Record and report damaged or faulty equipment 4.3 Record and report all routine maintenance activities 4.4 Check drainage system regularly

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDRG201A Maintain drainage systems.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRG201 Maintain drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- inspect and maintain simple drainage system components
- inspect components for wear
- monitor and control weeds and silt build up
- record and report damage, blockages and leakages

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of drainage system maintenance:
 - disposal procedures for chemical containers and residues, oils, grease and used parts
 - drainage system cleaning procedures
 - environmental impacts of drainage system maintenance
 - equipment used to clean and maintain drainage systems
 - manual, mechanical and chemical weed control methods
 - types of drainage systems

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRG301 Install drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install surface and subsurface drainage systems.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Drainage (DRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for drainage system installation activities	1.1 Identify the construction site for the drainage system 1.2 Select materials, tools, equipment and machinery and carry out pre-operational and safety checks 1.3 Identify work health and safety hazards, assess risks and implement controls

Element	Performance criteria
	1.4 Select, use and maintain suitable personal protective equipment
2. Co-ordinate installation work	2.1 Coordinate work tasks in a sequential, timely and effective manner 2.2 Install the drainage system with due consideration of the environmental implications 2.3 Maintain a clean and safe work area throughout work
3. Prepare the site for installation of drainage system	3.1 Interpret symbols and terminology to ensure the concept of the drainage system plan is clearly understood 3.2 Identify layout of services, check depths and report discrepancies 3.3 Complete survey, measurement and marking out of site and confirm soil characteristics relevant to the system
4. Undertake installation of drainage system	4.1 Complete excavations without damage to services, facilities, features and established plants 4.2 Install the drainage system 4.3 Test the drainage system for configuration, flow rates and capacity 4.4 Confirm remedial action to be taken when the drainage system operation does not meet the plan specifications
5. Complete installation of drainage system	5.1 Finish earthworks 5.2 Restore the site and remove and dispose of waste material 5.3 Clean, maintain and store tools, equipment and machinery 5.4 Record work outcomes and report the works as per the executed drawings, including adjustments

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDRG301A Install drainage systems.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRG301 Install drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- install drainage system works
- interpret drainage system plans and drawings
- interpret site specifications, soil types and drainage system plans
- level and align earthworks
- measure materials required to install drainage systems
- prepare for installation activities
- set out drainage system works
- set out, survey, test and excavate the installation site
- test the drainage system
- use equipment, tools and machinery appropriate to the scope of works

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of drainage installation
- drain types, components and installation techniques
- soil characteristics and their impact on drainage systems
- purposes of drainage systems and the application of drainage system plans to the physical situation
- work health and safety

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRG302 Measure drainage system performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to measure, record and report on soil moisture, salinity and water table depth to determine system performance and efficiency.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Drainage (DRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work	1.1 Confirm the location of the drainage system 1.2 Select materials, tools, equipment and machinery 1.3 Carry out pre-operational and safety checks on tools, equipment and machinery

Element	Performance criteria
	1.4 Identify work health and safety hazards, assess risks and implement controls 1.5 Select, use and maintain suitable personal protective equipment
2. Assess drainage and collection systems	2.1 Determine damaged or broken components 2.2 Inspect areas for signs of water pooling and problems 2.3 Take measurements to determine drainage performance 2.4 Identify and record factors external to the system which may cause interference
3. Record and report system performance status	3.1 Record water quality and quantity 3.2 Record water table depth, soil moisture and salinity 3.3 Document strategies that minimise the negative environmental impacts and maximise the positive impacts of the drainage system

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDRG302A Measure drainage system performance.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRG302 Measure drainage system performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify adverse environmental impacts of drainage systems
- identify and apply appropriate remedial action
- identify and correct system problems
- identify hazards and implement safe work procedures
- use technology to record and report drainage system data

Knowledge Evidence

The candidate must demonstrate knowledge of:

- how to measure a water table and salinity
- measuring and monitoring procedures for factors contributing to drainage system performance
- positive and negative environmental impacts of drainage systems
- soil moisture measurement procedures
- the environmental role of drainage systems
- water quality monitoring methods and techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRG303 Troubleshoot drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to troubleshoot issues in drainage systems.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Drainage (DRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work	1.1 Identify drainage system issues and develop plans to rectify them 1.2 Locate the affected section of drainage system 1.3 Determine work requirements and responsibility for repair 1.4 Select materials, tools, equipment and machinery 1.5 Carry out pre-operational and safety checks on tools, equipment

Element	Performance criteria
	and machinery 1.6 Identify work health and safety hazards, assess risks and implement controls 1.7 Select, use and maintain suitable personal protective equipment
2. Determine access to drainage system	2.1 Access plan of drainage system and locate access points 2.2 Carry out digging without unnecessary damage to buildings, site, environment or existing fixtures and fittings
3. Carry out work	3.1 Use safe manual lifting and handling techniques 3.2 Access drainage system and rectify identified issue 3.3 Test drainage system to confirm issue has been rectified 3.4 Repair or reseal drainage system to permit normal use 3.5 Advise relevant personnel that repairs have been completed and the drainage system has been commissioned for use
4. Complete work	4.1 Clean work area and dispose of debris and waste 4.2 Clean and maintain tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDRG303A Troubleshoot drainage systems.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRG303 Troubleshoot drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- complete a range of rectification works
- identify a range of drainage system issues relevant to their industry, including surface and sub-surface issues
- inspect the site to determine access to drainage system
- plan and prepare for the work
- test the system and clean up after rectifying the identified issues

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of drainage system troubleshooting
 - components used in drainage systems
 - environmental impacts of drainage systems
 - isolation processes and procedures
 - types and operational parameters of drainage systems
 - types of drainage systems common to their industry and their possible issues
 - work plans and processes

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRG304 Maintain and repair irrigation drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain and repair irrigation drainage systems.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Drainage (DRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to carry out irrigation drainage system maintenance	1.1 Inspect site and assess drainage 1.2 Confirm the necessity for repair and notify appropriate people of the intention to commence work 1.3 Determine work requirements from plans, drawings, specifications or instructions and identify hazards, assess risks

Element	Performance criteria
	and implement control measures 1.4 Select required tools and equipment and check for safe operation 1.5 Select and use suitable personal protective equipment 1.6 Confirm that excavation methods meet the safety requirements of the task and site 1.7 Make appropriate drainage and inflow diversion arrangements without damage to environment
2. Access to drainage lines	2.1 Access plan of irrigation system and locate access points 2.2 Gain access to drainage lines to allow blockage to be cleared 2.3 Carry out digging without unnecessary damage to buildings, site, environment or existing fixtures and fittings
3. Carry out repairs on an irrigation drainage system	3.1 Conduct routine inspections of designated work areas 3.2 Identify system faults and take corrective actions with consideration of structure type, location and specifications 3.3 Use mechanical equipment to open and close drains 3.4 Repair or replace components and associated fittings as required 3.5 Construct cast in situ components
4. Clear blockages in an irrigation drainage system	4.1 Clear blockages 4.2 Test drainage lines to confirm blockages have been cleared from pipe system 4.3 Repair and reseal drainage lines to permit normal use 4.4 Clean and align work area and dispose of debris and waste
5. Maintain drainage earthworks and equipment	5.1 Confirm that earthworks and embankments meet system requirements 5.2 Manage and maintain drainage area vegetation 5.3 Control weeds are controlled 5.4 Implement and record a maintenance program for drainage equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG320A Maintain and repair irrigation drainage systems.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRG304 Maintain and repair irrigation drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- isolate appliances, fixtures, fittings and related assemblies
- gain access and carry out repairs
- level and align the site
- repair or remove blockages
- use manual and mechanical drain clearing equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for maintaining drainage systems
 - components used in irrigation drainage systems
 - environmental impacts of drainage systems
 - isolation processes and procedures
 - levelling and alignment processes
 - types and operational parameters of irrigation drains

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRG401 Coordinate and supervise installation of an irrigation drainage system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate and supervise the installation of an irrigation drainage system.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Drainage (DRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop and implement construction	1.1 Develop employment and contract management procedures 1.2 Develop procedures for controlling and recording site deliveries

Element	Performance criteria
procedures	1.3 Develop procedures for recording the hire of plant and equipment 1.4 Determine work health and safety procedures, including risk assessment 1.5 Notify client, authorities and agencies of the schedule of works 1.6 Develop procedures for dealing with environmental issues associated with construction work
2. Organise resource requirements	2.1 Nominate tasks and timelines, including the required resources for each 2.2 Organise labour requirements 2.3 Verify the correct parts and equipment have been delivered to the site and checked 2.4 Select and maintain equipment and machinery 2.5 Allocate jobs and tasks to the work team 2.6 Carry out safety induction for the task and site
3. Interpret the irrigation drainage system design for the site	3.1 Determine the purpose, scale and required output of the irrigation system 3.2 Assess the landscape of the site 3.3 Determine construction requirements and verify with the designer 3.4 Select components to meet design specifications and site requirements
4. Supervise preparatory work	4.1 Interpret plan and supervise preparatory work 4.2 Take levels and plan earth works 4.3 Confirm site is cleaned and marked out 4.4 Confirm drainage structures are pegged out
5. Supervise construction of the drainage system	5.1 Interpret plan and supervise construction work 5.2 Confirm trenches are excavated to specification 5.3 Confirm earth works are carried out appropriately 5.4 Confirm construction of drainage structures are to specifications 5.5 Inspect the lay out and joining of pipes 5.6 Check the fitting and adjustment of fittings and valves and confirm all joints are secured 5.7 Supervise the installation and testing of the pumping system
6. Commission the irrigation drainage system	6.1 Start the system up 6.2 Identify operating faults and take corrective actions as required 6.3 Use testing and monitoring equipment to monitor system efficacy 6.4 Make adjustments as required
7. Supervise the rehabilitation of the	7.1 Monitor the resurfacing and sealing earthworks 7.2 Confirm the planting and maintenance of vegetation areas have

Element	Performance criteria
works area	been carried out 7.3 Confirm the disposal of waste and surplus materials has been carried out in an environmentally sound manner

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG424A Construct and install an irrigation drainage system.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRG401 Coordinate and supervise installation of an irrigation drainage system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- conduct a work health and safety risk assessment
- develop operational procedures
- document requirements for structures
- estimate quantities and volumes of soil to be moved
- implement employment procedures
- interpret irrigation designs
- supervise workers in:
 - earth moving and construction procedures
 - power and pumping plant installation
 - pump and gated pipe installation
 - construction of canals, channels, head ditches, beds, check structures, tailwater holding ponds

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of irrigation drainage system installation
 - components used in drainage systems
 - drainage appliances, fixtures and fittings
 - environmental impacts of drainage systems
 - environmental role of drainage systems
 - isolation processes and procedures
 - level and align site

- levelling and alignment processes
- measuring and monitoring procedures for factors contributing to drainage system performance
- positive and negative environmental impacts of drainage systems
- regulatory requirements, codes of practice and relevant enterprise service standards relating to blockage removal, disconnection and reconnection activities
- soil moisture measurement procedures
- types and operational parameters of drains
- water authority standards and procedures
- water quality monitoring methods and techniques
- water table and salinity measures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRG402 Monitor and control irrigation drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor and control irrigation drainage systems.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Drainage (DRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess irrigation drainage and collection systems	1.1 Measure drainage performance 1.2 Measure drainage and tail water quality 1.3 Measure water table depth where required 1.4 Measure soil salinity where required

Element	Performance criteria
	1.5 Identify and record factors external to the system which may cause interference 1.6 Analyse drainage system data and compare to the performance specified in the irrigation drainage plan
2. Regulate flows	2.1 Inspect flow regulating systems and apply adjustments necessary to achieve discharge requirements specified 2.2 Monitor discharge flows and apply diversions to facilitate repair or emergency
3. Control and operate drainage system structures and processes	3.1 Control processes to maintain specified performance 3.2 Develop and implement maintenance procedures 3.3 Identify, address and report operational conditions of the drainage system 3.4 Integrate processes to improve drainage network performance
4. Troubleshoot drainage problems	4.1 Conduct a visual inspection to determine damaged or broken components and record results 4.2 Inspect areas being drained for signs of water pooling and record problems 4.3 Access drainage lines to allow blockage to be cleared 4.4 Clear blockage or replace blocked section 4.5 Test drainage line to confirm blockage is cleared from pipe system 4.6 Repair or reseal drainage line to permit normal use 4.7 Rehabilitate the drainage site
5. Record and report system performance status	5.1 Record water quality 5.2 Record water table depth, soil moisture and salinity 5.3 Document strategies that minimise negative environmental impacts and maximise positive impacts of the drainage system

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG425A Monitor and control irrigation drainage systems.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRG402 Monitor and control irrigation drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply soil moisture testing techniques
- calculate water volumes from rate and depth
- clear and refill drainage lines
- clear blockages from drainage systems
- identify hazards and implement safe work procedures
- isolate drainage lines
- measure water table depth, soil moisture and salinity

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for monitoring irrigation drainage systems
 - components used in drainage systems
 - environmental impacts of drainage systems
 - isolation processes and procedures
 - levelling and alignment processes
 - measuring and monitoring procedures for factors contributing to drainage system performance
 - soil moisture measurement procedures
 - types and operational parameters of drains
 - water quality monitoring methods and techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRG501 Design drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify design requirements, determining the specifications for drainage systems and designing the drainage system.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Drainage (DRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine design requirements	1.1 Determine water transfer, recharge, reuse and harvesting system needs 1.2 Describe processes of collecting, disposing and storing drainage

Element	Performance criteria
	<p>water to avoid degrading water quality</p> <p>1.3 Investigate regional geology and geography to predict drainage parameters</p> <p>1.4 Apply hydrological calculations to predict volumes and rates of surface run-off</p> <p>1.5 Conduct site investigations to assess depth of clay, depth of ground water, soil and water salinity, and structural or chemical impediments so as to determine the most cost effective drainage system</p> <p>1.6 Document predictions of leaching fractions and salt movements, and develop soil amelioration and drainage management plans</p> <p>1.7 Determine the need for leachate interception and dewatering system and if required prepare construction specification for interception and collection, disposal, reuse or recycle</p> <p>1.8 Confirm drains and structures are capable of carrying the design water volumes and intensities according to enterprise standards</p> <p>1.9 Identify construction specifications required to make drainage systems in accordance with environmental and work health and safety requirements</p> <p>1.10 Identify and protect environmentally sensitive areas according to local, state and federal legislation and regulations</p>
2. Design a drainage system	<p>2.1 Select systems, including relevant equipment, to move water efficiently to water storage or treatment and at the flow and pressure required in design specifications</p> <p>2.2 Select system combinations that are efficient, reliable, functional, serviceable and flexible for the intended application</p> <p>2.3 Determine energy requirements and check layout of electricity lines with local authority if electrical pumps and motors are used in the system</p> <p>2.4 Select structures, pipes, valves and accessories and integrate into a functional system that can be monitored and maintained</p> <p>2.5 Define the work required to make suitable drainage systems available to the enterprise in the design specifications</p> <p>2.6 Confirm power supply design specification with power authorities if electrical pumps and motors are used in the system</p> <p>2.7 Minimise damage from drainage system issues</p> <p>2.8 Design output is checked by an appropriately experienced and qualified person</p>
3. Determine capital expense budget	<p>3.1 Estimate materials required from plans and specifications</p> <p>3.2 Estimate labour requirements based on documented work schedule with reasonable allowance for variances in work</p>

Element	Performance criteria
	schedules 3.3 Base costing for each component on quoted information from suppliers, or sound analysis of individual elements 3.4 Document design calculations, performance indicators and decisions and relevant information in plans, specifications and manuals 3.5 Budget output is checked by an appropriately experienced and qualified person
4. Determine operating expense budget	4.1 Optimise the relationship between capital and operational costs including a comparison of energy sources 4.2 Collate all operating expense applicable to the completed drainage system and calculate an operating expense budget

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDRG501A Design drainage systems.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRG501 Design drainage systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess the requirements for pumping capacity in a drainage system and power requirements
- complete hydrological calculations
- develop budgets
- develop specifications for water transfer, recharge, reuse and harvesting systems
- identify adverse environmental impacts of drainage and appropriate remedial action
- identify design requirements
- identify performance indicators for the drainage system
- predict volumes and rates of surface run-off and system leakage

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of drainage design
 - budgeting, contractual development and obligations
 - developments in drainage technology
 - cost/benefit analysis
 - leachate interception and dewatering systems
 - leaching fractions and salt movements prediction
 - monitoring systems
 - the design processes
 - water transfer, recharge, reuse and harvesting systems
 - workplace health and safety and environmental protection legislation

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRY201 Milk livestock

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to milk livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Dairy (DRY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for milking	1.1 Prepare dairy sheds, yards and equipment for milking operations 1.2 Prepare teat sprays

Element	Performance criteria
	1.3 Move and yard livestock in readiness for milking operations 1.4 Follow appropriate work health and safety practices
2. Carry out milking	2.1 Move livestock into position and check and prepare for milking 2.2 Segregate and report livestock producing milk unsuitable for bulk sales where required 2.3 Conduct milking hygienically and monitor progress to prevent over-milking 2.4 Identify and isolate unsuitable milk from bulk supplies 2.5 Identify and report livestock health problems to supervisor for treatment 2.6 Report livestock on heat where required 2.7 Handle livestock in line with enterprise animal welfare policies
3. Complete milking operation	3.1 Return livestock to paddocks without causing stress or injury 3.2 Select suitable detergents and cleaning supplies 3.3 Carry out cleaning procedures to maintain hygiene standards of dairy facilities 3.4 Identify and report machinery and equipment malfunctions for repair or replacement

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDRY201A Milk livestock.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRY201 Milk livestock

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare dairy facilities and equipment to industry safety and hygiene standards
- operate milking equipment to carry out milking in an effective and efficient manner
- complete milking operation and return livestock to paddocks
- clean dairy facilities and equipment to industry standards
- recognise and isolate unsuitable milk
- identify sickness or abnormal behaviour in livestock
- communicate with supervisor and staff
- follow enterprise work health and safety policies
- follow enterprise animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, functions, cleaning and maintenance of milking facilities, machinery and equipment such as sheds, yards, milking machines and teat sprays
- anatomy, physiology, reproduction cycle, lactation and behaviour of the animal species applicable to milking operations
- relevant work health and safety requirements
- relevant animal welfare practices and requirements such as handling and moving livestock
- work routines, procedures and impacts of bad practices for milking operations
- criteria and methods for determining milk quality
- types, characteristics, signs of ill health, prevention and treatment of relevant diseases in the livestock species
- types, handling, use and disposal of detergents and cleaning agents, work health and safety and environmental practices for these agents

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRY301 Coordinate milking operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate the milking operations of an enterprise.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Dairy (DRY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine requirements for	1.1 Identify and clarify production requirements according to

Element	Performance criteria
milking operations	enterprise objectives 1.2 Identify and comply with requirements for the maintenance of milk quality 1.3 Determine and maintain resources and equipment requirements 1.4 Identify work health and safety hazards, assess risks and implement control measures
2. Determine milking procedures	2.1 Determine milking routines and procedures for milking operations, with consideration to the range of variable conditions 2.2 Check water supplies for availability and check and adjust milking equipment to ensure good operational condition 2.3 Implement milking procedures with minimum stress to livestock and maximum yield within reasonable timeframes 2.4 Rectify minor malfunctions of equipment or milking systems to manufacturer's specifications and report more complex repairs for specialist attention
3. Implement livestock health treatment program	3.1 Monitor livestock health and condition 3.2 Carry out livestock testing according to enterprise plan and seek advice from supervisors and experts for potential health issues 3.3 Carry out livestock health treatments during drying off with minimal stress and weight loss according to veterinary or expert advice 3.4 Implement hygiene practices to prevent cross-infection during milking operations 3.5 Take milk samples and label appropriately 3.6 Complete and maintain livestock health records 3.7 Carry out all livestock handling and husbandry in line with enterprise animal welfare policies
4. Coordinate and monitor milking operations	4.1 Monitor milking procedures for efficiency, effectiveness and compliance with relevant requirements 4.2 Monitor and maintain milk quality 4.3 Monitor costs to ensure operations are completed and maintained within budget 4.4 Clean work areas and equipment, and dispose of organic and non-organic waste in an environmentally responsible manner 4.5 Complete documentation and records accurately and promptly

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDRY301A Coordinate milking operations.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRY301 Coordinate milking operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe operating procedures
- determine requirements for milking operations
- schedule, coordinate and monitor milking operations
- implement livestock health treatment program
- conduct milk sampling and testing
- implement drying off programs according to livestock health strategy
- recognise and rectify machinery malfunctions
- participate in livestock recording programs
- clean work areas and milking equipment.
- apply enterprise work health and safety policies
- apply enterprise animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, functions, cleaning, monitoring and maintenance of milking facilities, machinery and equipment
- enterprise and industry requirements for milking operations such as production targets, finances, required resources, manpower and equipment
- criteria, methods and industry standards for determining milk quality
- factors affecting milk quality, and their effects and impacts on enterprise production targets and enterprise viability
- work routines, procedures and impacts of bad practices for milking operations

- anatomy, physiology, reproduction cycle, lactation and behaviour of the animal species applicable to milking operations
- relevant hygiene and biosecurity practices and requirements for milking operations
- relevant animal welfare practices and requirements for milking operations
- relevant livestock testing, health treatment and preventive medicine applicable to milking operations
- types, characteristics, signs of ill health, prevention and treatment of relevant diseases in the livestock species
- types and maintenance of required documentation and records
- types, handling, use and disposal of detergents and cleaning agents, Work Health and Safety and environmental practices for these agents
- relevant requirements, methods and methods for waste and debris storage and disposal
- relevant work health and safety legislation, regulations and codes of practice

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRY302 Operate a dairy recycling system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate a dairy recycling system.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Dairy (DRY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for dairy waste disposal operations	1.1 Confirm work to be undertaken from the work program 1.2 Hold discussions with other workers who may be affected by the

Element	Performance criteria
	maintenance activities 1.3 Identify work health and safety hazards, assess risks and implement suitable controls 1.4 Select, use and maintain personal protective equipment (PPE) 1.5 Select, check and maintain tools and equipment for the work to be undertaken
2. Maintain and operate a dairy waste storage and disposal system	2.1 Service and maintain dairy waste removal and disposal equipment 2.2 Use dairy waste disposal systems according to system design and in compliance with approval granted by local government and the State environment protection authority 2.3 Carry out recognised techniques for irrigation from dairy waste storages 2.4 Flush and drain in-shed dairy waste pits
3. Monitor dairy waste disposal system	3.1 Check flow rates, pit levels and equipment regularly to maintain effective operation of the system 3.2 Carry out cleaning procedures and hygiene practices 3.3 Identify environmental impacts of dairy waste disposal, assess likely outcomes and if necessary, take responsive action in line with enterprise environmental policies
4. Conduct hygiene and administration activities	4.1 Clean equipment according to manufacturer's specifications 4.2 Clean and store attachments and other ancillary equipment appropriately 4.3 Dispose of all containers, leftover fluids, waste and debris from the operations safely and appropriately 4.4 Complete all required records and documentation accurately and promptly

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDRY302A Operate a dairy recycling system.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRY302 Operate a dairy recycling system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- make preparations for dairy waste disposal operations
- maintain and operate a dairy waste storage and disposal system in accordance with work health and safety and environmental legislation, regulations and codes of practice
- monitor dairy waste disposal system
- carry out irrigation from dairy waste storages.
- observe, identify and react appropriately to environmental implications and work health and safety hazards associated with the dairy recycling system
- conduct hygiene and administration activities
- apply enterprise work health and safety policies
- apply enterprise environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise work program and program requirements for dairy waste disposal operations
- relevant work health and safety requirements
- tools, equipment and systems used for dairy waste disposal operations (dairy waste handling, removal and disposal) and their functions, cleaning, maintenance, servicing and storage of such tools, equipment and systems
- relevant local government, State and Commonwealth regulations and industry requirements for dairy waste disposal operations
- environmental impacts of dairy waste disposal operations and dairy waste irrigation, and strategies to mitigate such impacts
- irrigation techniques for dairy waste
- functions, maintenance and service of effluent pits

- methods for safe and appropriate disposal of containers, leftover fluids, waste and debris from effluent operations
- documentation and type of records that need to be completed for effluent operations
- relevant biosecurity requirements and environmental sustainability practices

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDRY401 Manage milking shed routines

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage milking shed routines.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication

Pre-requisite Unit

Nil.

Unit Sector

Dairy (DRY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Manage routine maintenance	1.1 Plan maintenance schedules in accordance with manufacturer's recommendations and industry standards

Element	Performance criteria
	1.2 Implement programmed replacement of consumables in line with recorded usage and replacement schedule 1.3 Identify and replace worn or unsafe components 1.4 Identify and rectify milking equipment maintenance problems 1.5 Engage specialist services for non-routine service and repairs
2. Manage shed milking routines	2.1 Determine milking shed routines and schedules with available labour and resources 2.2 Allocate and communicate staff responsibilities 2.3 Establish and implement milk production recording procedures 2.4 Implement industry or supplier quality assurance practices and procedures in programmed shed routines 2.5 Implement enterprise work health and safety policies 2.6 Implement enterprise animal welfare policies
3. Manage unsuitable milk from at risk cows	3.1 Establish shed procedures for the identification of cow herd health problems 3.2 Isolate milk from at risk cows to maintain overall milk quality 3.3 Select and administer appropriate treatments according to veterinary or expert advice 3.4 Determine strategies for the isolation or drying off of at risk or mastitis affected cows in accordance with appropriate advice
4. Maintain enterprise practices for milk quality	4.1 Develop in shed hygiene routines according to industry best practice and standards 4.2 Implement hygiene procedures to prevent cross infection and teat or udder damage 4.3 Monitor milk quality to comply with specified supplier standards 4.4 Monitor milk cooling equipment and storage to maximise milk quality 4.5 Identify environmental impacts of milking operations, assess likely outcomes and take action to minimise adverse effects in line with enterprise environmental policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCDRY401A Manage milking shed routines.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDRY401 Manage milking shed routines

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- oversee the routine maintenance and service of milking equipment and replacement of consumables
- oversee the conduct of milking operations
- identify possible causes of decline in milk quality including animal infection and teat damage identify faults in milking equipment and rectify
- oversee cleaning and disinfection of milk area and equipment after milking
- maintain records of the milking operation
- manage unsuitable milk from at risk cows
- maintain enterprise practices for milk quality in co-operation with dairy factory personnel
- implement enterprise work health and safety policies
- implement enterprise animal welfare and environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, functions, cleaning, monitoring and maintenance of milking facilities, machinery, equipment and consumables
- enterprise and industry requirements for milking operations such as production targets, finances, required resources, manpower and equipment
- work routines, procedures and impacts of bad practices for milking operations
- relevant industry standards, guidelines, codes of practice and programmes for milking operations, milk quality assurance and milking shed routines
- types, characteristics, signs of ill health, prevention and treatment of relevant diseases in the livestock species and their impact on milking operations and milk quality

- criteria, methods and industry standards for determining milk quality
- factors affecting milk quality, and their effects and impacts on enterprise production targets and enterprise viability
- anatomy, physiology, reproduction cycle, lactation and behaviour of the animal species applicable to milking operations
- relevant hygiene and biosecurity practices and requirements for milking operations
- relevant livestock testing, health treatment and preventive medicine applicable to milking operations
- types, handling, use and disposal of detergents and cleaning agents, work health and safety and environmental practices for these agents
- environmental impacts of milking operations and strategies to mitigate such impacts
- relevant work health and safety requirements
- relevant animal welfare practices and requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCEXP301 Handle and store explosives

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to handle, store, load and transport explosives in line with established industry standards.

This unit applies to individuals who work under broad direction and take responsibility for their own work. This includes using discretion and judgement in the selection and use of available resources.

Licensing conditions apply to this unit. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Explosives (EXP)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for the handling of explosives	1.1 Identify and action work health and safety policies and procedures and legislative requirements for the handling, storage and transport of specified quantities of explosives 1.2 Check for damaged or defective explosives and take action according to enterprise procedures

Element	Performance criteria
	1.3 Conduct risk assessment for handling explosives that addresses local conditions and factors, and implement safety procedures 1.4 Prepare and display signage and placarding on vehicles or storage facilities for explosives as directed by legislative requirements 1.5 Identify and implement, where necessary, emergency procedures for the transportation, handling and storage of explosives 1.6 Establish monitoring and recording systems for authorisation to handle, store and transport explosives that comply with the Australian Explosives code and other legislative requirements
2. Transport explosives	2.1 Establish arrangements to maintain the integrity and security of transported explosives in line with enterprise requirements 2.2 Institute security procedures to ensure explosives arrive at the destination in tact according to specified time and condition 2.3 Implement workplace strategies to carry out emergency procedures as required in compliance with legislative requirements 2.4 Load and transport explosives safely and in accordance with legislative and individual enterprise requirements
3. Store explosives	3.1 Define and action the requirements for the safe and secure storage of explosives in accordance with legislative requirements 3.2 Define requirements for personnel authorised to gain access to explosives 3.3 Assess storage conditions to ensure they meet requirements for safe storage of explosives 3.4 Monitor and maintain security in accordance with legislative requirements 3.5 Accurately implement and maintain recording systems for the handling and storage of explosives in accordance with legislative requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCEXP301A Handle and store explosives.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCEXP301 Handle and store explosives

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- handle, transport and store explosives safely and in accordance with legislative and enterprise requirements
- conduct risk assessment and implement safe work procedures
- correctly and safely load and transport components of explosives in accordance with regulatory and enterprise requirements
- establish monitoring and recording systems for handling, storing and transporting explosives according to legislative requirements
- display placards on vehicles transporting explosives
- implement security procedures for all explosives on hand
- follow procedures for dealing with an emergency with transported or stored explosives
- use standard industry terminology
- apply work health and safety policies and procedures when handling, transporting and storing explosives
- apply policies and procedures to ensure the safety of the public

Knowledge Evidence

The candidate must demonstrate knowledge of:

- local conditions and factors in the handling, transporting and storage of explosives
- care and preventive measures required to eliminate risk of fire and deterioration of stored materials
- procedures for buying commercial explosives and blasting agents from licensed dealers and Government agencies
- how to comply with Australian Explosives Code

- identification of defective or damaged explosives
- environmental conditions required for safe storage

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCEXP302 Identify and select explosive products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify and select explosive products and suitable mixtures that can be used for blasting for agricultural or land management purposes.

This unit applies to individuals who work under broad direction and take responsibility for their own work. This includes using discretion and judgement in the selection and use of available resources.

Licensing conditions apply to this unit. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Explosives (EXP)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify explosives applications	1.1 Identify the job application requiring the use of explosives in consultation with the field manager or supervisor 1.2 Identify the site for blasting and check the surrounding area to confirm that all aspects of safety have been considered and

Element	Performance criteria
	<p>actioned</p> <p>1.3 Identify risks and potential side effects of the blast after consideration of all site characteristics and use information in the planning of blasting operations</p> <p>1.4 Consider environmental implications of the intended explosives usage when planning blasting activities</p> <p>1.5 Consider and utilise alternatives to the use of explosives when planning the application, as appropriate</p> <p>1.6 Follow work health and safety policies and procedures when handling or using explosives to maintain own, fellow workers' and public safety</p>
2. Select explosives components	<p>2.1 Select explosive products to match the application, site and identified hazards at the blasting site</p> <p>2.2 Make sure explosives or components are not damaged or defective before use</p> <p>2.3 Establish the quantity of explosive energy required in line with the site characteristics and the designated application</p> <p>2.4 Ensure initiator device selection reflects industry best practice and matches explosives selection</p> <p>2.5 Utilise safety fuses as required to suit the application</p> <p>2.6 Make sure the use of explosives complies with relevant legislative requirements and Australian Standards</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCEXP302A Identify and select explosive products.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCEXP302 Identify and select explosive products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must demonstrate that they can identify and select appropriate explosive products for the task.

The candidate must provide evidence that they can that they can:

- establish the need to use explosives
- identify the risks and environmental implications of using explosives
- select explosives and initiator devices to match the application, site and identified hazards at the blasting site
- utilise safety fuses as required
- identify various components of explosive products
- estimate the likely effect of explosives on structures, personnel and livestock in the site vicinity
- apply work health and safety policies and procedures when working with explosives
- apply policies and procedures to ensure the safety of the public

Knowledge Evidence

The candidate must demonstrate knowledge of:

- uses of various explosive products
- performance of each explosive product used by the enterprise
- the behaviour of the substrate material when subject to blasting
- jobs that require the use of explosives in the context of own conservation and land management work

- particular properties of explosives/blasting agents and their suitability for particular purposes
- features that identify defective or damaged explosives
- key concepts of the Australian standards relating to the storage, transportation and use of explosives as they apply to own work role
- relevant State and Territory legislation

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCFAU201 Recognise fauna

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recognise and record fauna that are commonly encountered when undertaking agricultural, horticultural and land management activities.

This unit applies to supervised workers in land management projects.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Fauna (FAU)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for fauna	1.1 Identify range of fauna requiring recognition according to

Element	Performance criteria
recognition	supervisor needs 1.2 Locate and identify resources and equipment for use in recognition activity 1.3 Identify and select appropriate processes for fauna recognition 1.4 Determine appropriate location for observations 1.5 Prepare for fauna recognition process 1.6 Move in and around location carefully to allow greater opportunity for fauna sightings and to reduce environmental impact of the activity 1.7 Follow work health and safety policies and procedures for fieldwork
2. Recognise specified fauna	2.1 Recognise and name fauna according to their identifiable characteristics 2.2 Record brief descriptions of fauna habits, characteristics and significant features 2.3 Seek advice from supervisors in the identification activity 2.4 Follow procedures to ensure all observation activities comply with animal welfare codes of practice
3. Complete identification of fauna	3.1 Record information about identified fauna and add to the reference collection 3.2 Update field notes as new fauna are recognised 3.3 Report rare, uncommon or notifiable pest fauna to supervisor according to enterprise guidelines

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCFAU201A Recognise fauna.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCFAU201 Recognise fauna

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed in the field recognising and recording details of fauna sightings.

The candidate must provide evidence that they can:

- move through a nominated natural area in a manner suitable for fauna observation, causing minimal disruption and damage to the environment and fauna that inhabit it
- select sites and situations where fauna are likely to be present
- observe and record the details of observations according to enterprise requirements
- recognise fauna according to detailed characteristics
- follow workplace procedures and supervisor instructions for recognising and recording fauna
- apply work health and safety policies and procedures to fauna observation activities
- apply animal welfare practices in all observation activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- fauna identification techniques
- fauna behaviour
- fauna habitats
- fauna tracks and traces
- names and characteristics of fauna in target location
- techniques for observing, identifying and reporting fauna
- enterprise expectations about the range and number of fauna to be recognised
- workplace health and safety policies and procedures

- procedures for reporting rare, uncommon or notifiable pest fauna
- basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCFAU301 Respond to wildlife emergencies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to evaluate and coordinate a response to natural resource emergencies involving fauna.

This unit applies to working within own area of responsibility in a response to a wildlife emergency. These individuals are required to take responsibility for their own work and take limited responsibility for other workers and possibly volunteers.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Fauna (FAU)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Evaluate wildlife	1.1 Investigate nature of emergency from eyewitness reports or own

Element	Performance criteria
emergency	inspection 1.2 Make assessment of key factors that may impact on an appropriate response, including public and personal health and safety, animal care, biosecurity and environmental factors 1.3 Notify authorities of incident according to enterprise procedures 1.4 Implement interim care of animals pending instructions from authorities 1.5 Delegate appropriate staff to provide interim care for animals 1.6 Ensure personnel assisting in interim care are equipped and briefed 1.7 Implement care instructions provided by authorities or veterinarians 1.8 Collect information to determine further action 1.9 Interview informants to obtain details of the situation
2. Implement response to emergency	2.1 Establish communications necessary to manage situation 2.2 Transport resources and personnel to site 2.3 Establish site procedures and implement emergency plans according to legislative requirements and enterprise procedures 2.4 Move live fauna 2.5 Remove dead fauna from site and dispose of biological matter in accordance with enterprise procedures and health and safety requirements 2.6 Clean site in accordance with enterprise procedures to maintain public and environmental health and safety 2.7 Implement measures that minimise risk to significant places, area, habitats, species and communities
3. Coordinate response	3.1 Inform general public and media of the nature of the incident and agency decisions 3.2 Brief volunteers and staff on workplace health and safety hazards, preventive measures and reporting requirements 3.3 Coordinate and deploy volunteers according to their skills and available personal protective equipment 3.4 Establish physical barriers to keep public away from animals to minimise their distress and to protect the public 3.5 Manage media until authorities provide instructions 3.6 Use media according to enterprise procedures
4. Care for affected animals	4.1 Assign teams to animals according to incident assessment, care instructions and skills within teams 4.2 Apply animal first aid 4.3 Perform role in wildlife operations team according to the

Element	Performance criteria
	command structure and procedures of the management plan 4.4 Care for animals using a range of skills and according to veterinary instructions and enterprise procedures
5. Determine management options	5.1 Seek veterinary advice where appropriate 5.2 Collect biological and incident data on animals 5.3 Evaluate management options according to advice, condition of animal and risk assessment 5.4 Band or tag released animals where required for scientific purposes 5.5 Source equipment and staff for returning animal to wild or temporary captive management
6. Remove carcass	6.1 Develop inter-agency agreement with local authority for removal of carcasses 6.2 Dispose of carcasses according to authority instructions 6.3 Source equipment and staff for disposal
7. Complete debrief and report	7.1 Follow incident management processes for debrief and wash-up 7.2 Provide report to management to determine what procedures should be implemented

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCFAU301A Respond to wildlife emergencies.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCFAU301 Respond to wildlife emergencies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- evaluate natural resource emergency
- implement and coordinate response to emergency in accordance with enterprise procedures and health and safety requirements
- follow enterprise procedures to ensure the safety of self, other personnel, the general public and the wildlife
- determine management options including returning animal to wild or temporary captive management, according to authority and enterprise policies and procedures
- follow instructions from veterinarians or authorities to care for animal
- remove and dispose of animal carcasses in accordance with authority instructions
- complete debrief and prepare reports to enterprise standards
- apply workplace health and safety policies and procedures when implementing emergency plans
- apply appropriate animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- health risks associated with animals
- public relations and media management
- incident management systems
- State/Territory and local wildlife emergency authorities and organisations
- local authorities for wildlife emergencies
- potential biosecurity risks associated with wildlife rescue operations

- basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCFAU501 Manage fauna populations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare a fauna management plan including controlling or maintaining fauna populations.

This unit applies to managers of natural areas and technical specialists who manage and provide advice on fauna populations.

Firearms licensing conditions may apply to this unit. Specific determination should be sought through the relevant State or Territory.

Scientific licenses may be required if the management plan involves endangered or threatened species or critical habitats. Specific determination should be sought through the relevant State or Territory.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Fauna (FAU)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess fauna populations	1.1 Conduct surveys for distribution, ecology, viability, genetic diversity and threats 1.2 Determine increase or decrease in species population size and range 1.3 Assess desirability of the population change in terms of impact on immediate environment 1.4 Assess condition of the environment and habitats for ongoing support of the species 1.5 Research species numbers in other locations to determine significance of local population 1.6 Assess attitudes of stakeholders to the species to determine acceptable range of population management options 1.7 Complete a cost/benefit analysis of population management options
2. Prepare management plan	2.1 Develop plan of management from assessment 2.2 Prepare submissions for funding to implement the management plan 2.3 Assess plan of management in terms of costs and available funds, according to enterprise procedures
3. Control or maintain fauna population	3.1 Develop plan to control or maintain species into a series of intervention measures in accordance with resource constraints and legislative requirements 3.2 Implement measures to manage population according to legislative requirements 3.3 Obtain permits for population management according to legislative requirements 3.4 Inform stakeholders and staff about population management measures, according to enterprise procedures 3.5 Ensure management measures comply with work health and safety, animal welfare, biosecurity and environmental sustainability policies and procedures 3.6 Ensure staff are trained and, where required, licensed to manage population 3.7 Manage incidents with species according to legislative, enterprise, work health and safety and public safety requirements 3.8 Monitor and adjust management plan and record results in accordance with legislative and enterprise requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCFAU501A Manage fauna populations.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCFAU501 Manage fauna populations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess fauna populations and their habitat
- assess the impact of fauna population on the environment
- determine the stability and importance of fauna populations for their species
- plan intervention measures to improve species distribution, habitat and survivability
- prepare a fauna management plan in accordance with legislative requirements and enterprise procedures, including informing staff and stakeholders
- implement plan to control or maintain fauna populations
- develop workplace health and safety procedures within the management plan
- incorporate biosecurity procedures in the management plan
- apply animal welfare practices when managing fauna populations
- apply appropriate sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- legislative and enterprise requirements
- ecology of species, habitats, predators, competitors
- survey and assessment techniques
- key anatomical and behavioural characteristics and reproduction patterns of species
- signs and symptoms of health issues in the species
- management planning
- requirements of licences for scientific, educational and conservation activities

- requirements for ensuring the welfare of animals described in the relevant Codes of Practice

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC FIR201 Assist with prescribed burning

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist with prescribed burning for agricultural or natural resource management purposes.

This unit applies to personnel participating in lighting and conducting prescribed burns under direct supervision.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Fire (FIR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assist with preparations for the burn	1.1 Prepare machinery and equipment for use in the burn 1.2 Check and prepare safety equipment and personal protective equipment 1.3 Read or listen to information about contingency plans and seek

Element	Performance criteria
	clarification where required 1.4 Recognise and note assets requiring protection during the burn 1.5 Check personal role and activities during the burn 1.6 Discuss and clarify location and extent of the burn
2. Support conduct of burn	2.1 Provide assistance with pre-burn checks 2.2 Wear personal protective equipment throughout the burn 2.3 Follow work health and safety policies and procedures and enterprise operating procedures throughout the burn 2.4 Identify and maintain a safe escape route at all times 2.5 Raise problems or concerns during the burn with the supervisor 2.6 Maintain communication at all times 2.7 Observe conditions at the fire and note and report their effect on fire behaviour and development 2.8 Observe and report weather conditions and changes to fire behaviour 2.9 Use a fire extinguisher to extinguish fires according to enterprise requirements
3. Participate in clean-up activities	3.1 Carry out cleaning-up activities 3.2 Clean and store personal protective equipment, machinery and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC FIR201A Assist with prescribed burning.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC FIR201 Assist with prescribed burning

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated on at least one occasion.

The candidate must provide evidence that they can:

- prepare machinery and equipment to enterprise requirements before burning
- continually monitor weather conditions throughout the burn
- use personal protective equipment as required and check, clean and store on completion of the burn
- identify appropriate safe escape routes throughout the burn
- maintain communication with supervisor and other staff at all times throughout the burn
- carry out clean up operations according to supervisor instructions to enterprise standards
- apply work health and safety procedures throughout the burn

Knowledge Evidence

The candidate must demonstrate knowledge of:

- fire behaviour
- extinguishing media and equipment
- communication equipment and procedures
- burning tactics and techniques
- assets that need protecting throughout the burn
- fire hazards, safety techniques
- organisation's operating procedures for prescribed burn
- contingency plans and emergency procedures for the burn
- purpose and use of personal protective equipment
- work health and safety policies and procedures relevant to prescribed burning

- key concepts of work health and safety and environmental legislative and enterprise requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC FIR501 Manage wildfire hazard reduction programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage wildfire hazard reduction programs.

This unit applies to those whose job role includes managing wildfire hazard reduction programs through planning, advising and monitoring the performance of operational personnel undertaking fire prevention activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Fire (FIR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop wildfire prevention strategies	1.1 Rate potential wildfire hazards according to fuel loads, climate, location, accessibility, ecology and organisational priorities 1.2 Rate risks to buildings, structures and cultural sites from wildfires

Element	Performance criteria
	<p>according to adjacent fuel loads, climate, location, accessibility and organisational priorities</p> <p>1.3 Ensure wildfire hazard reduction strategies take into account the local fire history, fuel loads, climate, location, accessibility, geophysical systems, ecology, environmental sustainability practices, biosecurity, organisational procedures and priorities, work health and safety, local fire agencies and legislative requirements</p> <p>1.4 Gain local community support for proposed wildfire hazard reduction strategy</p> <p>1.5 Develop strategies for proposed wildfire hazard reduction in accordance with organisational priorities, local fire agencies and legislative requirements</p> <p>1.6 Ensure strategies comply with work health and safety, public health and safety and animal welfare regulatory requirements and enterprise guidelines</p>
2. Implement and monitor wildfire hazard reduction	<p>2.1 Determine equipment, chemicals and bioagents required for hazard reduction activities</p> <p>2.2 Implement hazard reduction strategies that are appropriate to the enterprise's objectives, the nature of the site, location, available resources and equipment, and environmental conditions</p> <p>2.3 Undertake hazard reduction in accordance with organisational plans and procedures, work health and safety policies and local fire agency and legislative requirements</p> <p>2.4 Incorporate biosecurity and environmentally sustainable practices in hazard reduction plans</p> <p>2.5 Coordinate hazard reduction activities with relevant agencies and other land users</p> <p>2.6 Monitor progress of hazard reduction activities</p> <p>2.7 Review hazard reduction plans, strategies and operational procedures and process recommendations for change</p>
3. Process records	<p>3.1 Report suggested or required changes to plans and strategies</p> <p>3.2 Ensure records document quantities and type of chemicals or biological agents used and where they were applied</p> <p>3.3 Ensure records document how, when and where hazard reduction actions taken</p> <p>3.4 Process incident report</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC FIR501A Manage wildfire hazard reduction programs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC FIR501 Manage wildfire hazard reduction programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop and manage wildfire hazard reduction programs in accordance with enterprise procedures, local fire agencies, work health and safety policies and legislative requirements
- rate wildfire risks to the environment, buildings, structures and cultural sites according to fuel loads, climate, location, accessibility and ecology
- develop effective strategies for wildfire hazard reduction that comply with local fire agency and regulatory requirements
- plan wildfire hazard reduction programs that take into account local fire history, climate fuel loads, location and accessibility
- review hazard reduction plans, strategies and operational procedures with other agencies to enterprise and regulatory requirements
- maintain records of pesticides and chemical agents used, hazard reduction and fire incidents according to enterprise procedures
- manage consultation with local community to ensure their support for program
- use industry standard terminology
- apply work health and safety policies and procedures in the planning and implementation of wildfire hazard reduction strategies
- apply biosecurity measures to wildfire hazard reduction planning
- incorporate appropriate sustainability practices in wildfire hazard reduction planning

Knowledge Evidence

The candidate must demonstrate knowledge of:

- wildfire prevention strategies

- contact details for local fire agencies in the case of an emergency
- local authorities, agencies and other land users
- hazards associated with wildfire prevention strategies
- fire behaviour in a rural/bush environment in known climatic conditions of the specified area
- range of equipment applicable to wildfire hazard reduction
- approved, safe use of equipment
- environmental, public health and safety issues
- types of chemical and biological hazards and how they should be handled
- the local fire history, fuel loads, climate, location, accessibility
- geophysical systems and ecology of the area
- organisational procedures and priorities for wildfire hazard reduction programs
- work health and safety, local fire agencies and legislative requirements that apply to prescribed burns

Assessment Conditions

Assessment must take place in a simulated environment.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCFIR502 Plan prescribed burning for fuel, ecological and cultural resource management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and monitor plans for prescribed burning in areas associated with fuel management and for the conservation of ecological and cultural assets.

The unit includes the identification of advantages and risks in burning for fuel management, identification of ecological and cultural assets and values and the conducting, monitoring and evaluation of a prescribed burn.

This unit applies to individuals whose job roles include preparing and monitoring plans for prescribed burning for fuel management taking into consideration the ecological and cultural assets and values of the target area. Work is undertaken without supervision. They may also have responsibility for the work of others involved in the program.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

PUAFIR303B Suppress wildfire*

PUAFIR204B Respond to wildfire

Unit Sector

Fire (FIR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess a designated site/area for prescribed burning	1.1 Locate, assess and record accumulated fuel, cultural heritage and environmental assets 1.2 Locate, assess and record reference areas, experimental plots, populations of flora and fauna that may be affected by fire 1.3 Assess and record potential impacts on natural and cultural heritage assets from prescribed burn preparation and burning activities 1.4 Assess potential risks and hazards 1.5 Identify the history of previous burns on the site, including frequency, season, intensity and extent 1.6 Take into account legislation, regulations and codes of practice relating to prescribed burn preparation and burning activities 1.7 Assess the suitability of a site or area for fuel reduction using prescribed burning and identify alternative strategies where necessary 1.8 Determine resources and equipment required to implement the plan
2. Plan for prescribed burning	2.1 Conduct site assessment to confirm targeted selection of sites or areas for prescribed burning 2.2 Establish objectives for fuel reduction, ecological and cultural heritage protection 2.3 Select strategies and tactics suitable for the area and consistent with the burn objectives 2.4 Assess wildfire hazards and risks of selected strategies and tactics 2.5 Conduct consultation and ongoing liaison with stakeholders 2.6 Ensure plan addresses work health and safety, protection of life, property, assets and the environment and is in accordance with legislative requirements 2.7 Ensure required resources and the optimum timing to reduce risk are included in the plan
3. Conduct post burn monitoring and evaluation	3.1 Develop and record post burn monitoring and evaluation activities 3.2 Assess outcomes of the prescribed burn against established objectives for fuel management and protection of ecological and cultural heritage assets 3.3 Develop recommendations based on information from monitoring and evaluation activities that are consistent with relevant legislation, regulations and codes of practice and organisational

Element	Performance criteria
	obligations 3.4 Document and report monitoring and evaluation findings

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

Maps to AHCILM509A Plan burning activities for natural and cultural resource management. NOT equivalent - Code and Title changed to reflect outcomes. Significant changes to unit content and outcomes.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC FIR502 Plan prescribed burning for fuel, ecological and cultural resource management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan, monitor, evaluate and report prescribed burning according to organisational procedures and legislative requirements
- identify wildfire hazards and risks of wildfire impacts
- identify ecological and cultural assets that may be affected by burning and preparation for burning activities
- develop and meet objectives for prescribed burn strategies, tactics and outcomes
- minimise environmental impact
- minimise impact on cultural assets
- recognise and consult with stakeholders
- research and apply lessons of history of burns in the area or site
- apply work health and safety legislative requirements to prescribed burn plans

Knowledge Evidence

The candidate must demonstrate knowledge of:

- wildfire hazards and risk management strategies
- prescribed burning strategies
- basic wildfire behaviour
- legislation relevant to wildfire hazard reduction, cultural heritage and protection of flora and fauna
- effects of fire on vegetation, fauna and fuel accumulation
- effects of fire on areas and places of cultural significance
- resource requirements to conduct burning activities

- risks in burning for fuel management

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCHYD301 Implement a maintenance program for hydroponic systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a maintenance program for hydroponic growing systems.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Hydroponics (HYD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor plant health	1.1 Interpret and clarify workplace information about the existing hydroponic system 1.2 Assess growth rate of plants against targets set in the production plan

Element	Performance criteria
	1.3 Assess plants for overall health 1.4 Assess plant for onset of fruit according to production plan
2. Monitor the hydroponic environment	2.1 Monitor environmental parameters according to the production plan and make adjustments as required 2.2 Collect samples and send off for analysis to identify potential sources of contamination 2.3 Monitor and adjust hygiene procedures 2.4 Monitor disposal of materials to ensure it follows enterprise guidelines
3. Monitor nutrient solution	3.1 Identify ingredients of the hydroponic nutrient solution 3.2 Take samples for testing and analysis 3.3 Interpret and discuss results 3.4 Modify nutrient solution to ensure correct balance of ingredients
4. Perform routine maintenance checks	4.1 Inspect all buildings and structures for wear and tear 4.2 Check equipment for delivering the nutrient solution 4.3 Check equipment controlling the atmospheric and root zone environments
5. Complete monitoring activities	5.1 Report problems to the manager 5.2 Record all checks

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCHYD301A Implement a maintenance program for hydroponic systems.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCHYD301 Implement a maintenance program for hydroponic systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- monitor and assess plant health
- administer nutrients to a hydroponic system as instructed
- assist in performing nutrient measurement tests
- read nutrient analysis information
- undertake hydroponic system maintenance and repairs
- monitor hydroponic maintenance programs

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for implementing a hydroponic maintenance program
- characteristics of healthy and unhealthy plants
- environmental implications of the disposal of chemicals or chemical containers and the drainage of high nutrient effluent
- equipment used in hydroponic systems
- plant growing media choices and their properties
- potential problems associated with a range of crops grown in a hydroponic environment
- properties of a nutrient solution
- recirculated and non-recirculated systems
- testing methods for a hydroponic nutrient solution
- testing methods for the gauging of environmental parameters

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCHYD302 Install hydroponic systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install recirculating or non-recirculating hydroponic systems.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Hydroponics (HYD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for installation	1.1 Interpret and clarify site plans and design specifications 1.2 Locate underground services according to site plans 1.3 Identify any potential site problems 1.4 Identify environmental implications of installing the system

Element	Performance criteria
	1.5 Clear the site for installation 1.6 Determine and arrange equipment and materials according to design and layout plans
2. Install a hydroponic system	2.1 Prepare site for and install drainage channels and water collection, and storage facilities according to design specifications 2.2 Assemble system infrastructure according to design specifications 2.3 Install system components according to design and layout plans and manufacturers specifications 2.4 Communicate problems associated with installation to the client or manager
3. Test and calibrate the system	3.1 Check infrastructure and systems are in working order and meet specifications 3.2 Calibrate hydroponic equipment 3.3 Install growing media 3.4 Test the system 3.5 Complete check list of all testing results
4. Complete installation operations	4.1 Clean and store all tools and equipment 4.2 Tidy site and remove and dispose of waste

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCHYD302A Install hydroponic systems.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCHYD302 Install hydroponic systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- commission a hydroponic system according to instructions and directions
- prepare a site for installation of a hydroponics system
- prepare materials and equipment for installation
- install components and structures associated with a hydroponic system
- test and calibrate a hydroponic system
- store and maintain associated installation equipment and materials

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of hydroponic system installation
- environmental implications of the drainage of high nutrient effluents
- head pressure and flow rates
- legislation regarding the installation of hydroponic systems
- plant growing media choices and their properties
- recirculated and non-recirculated systems

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCHYD501 Develop a plan for a hydroponic system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design a hydroponic system. It applies to those who design systems for hydroponic production of horticultural crops.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Hydroponics (HYD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Carry out preliminary research	1.1 Research type of crop to be grown based on sound marketing principles

Element	Performance criteria
	1.2 Research the growing requirements of the crop based on sound horticultural practices 1.3 Establish the associated risks of growing a particular crop based on sound horticultural practices 1.4 Calculate estimated yield and crop turnover time from historical data and research statistics 1.5 Determine quantity of the plants to be grown based on a cost benefit analysis
2. Assess the suitability of a site	2.1 Assess the physical characteristics of the site 2.2 Ascertain and assess the proximity of the site to markets 2.3 Identify legal requirements in relation to the site and the development of a hydroponic farm 2.4 Identify and consider the environmental implications of developing a hydroponic farm on the site
3. Select the required system	3.1 Research main types of hydroponic systems 3.2 Carry out analysis on each type of system for the chosen crops 3.3 Carry out a cost/benefit analysis on each system for each type of crop 3.4 Determine the type of hydroponic system to be installed
4. Design the hydroponic system	4.1 Select and document the water collection and storage system on the plan 4.2 Select the irrigation system and its components according to the required volume of water and flow rate 4.3 Select and document the fertigation system 4.4 Determine the dimensions of the controlled environment structure following full consideration of the relevant factors 4.5 Determine the environmental control system and document specifications on the plan
5. Prepare and document the design	5.1 Develop a design plan 5.2 Determine specifications and detailed costings with the help of experts, if required 5.3 Develop and document detailed production procedures and schedules 5.4 Present documentation to the client for final approval

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCHYD501A Develop a plan for a hydroponic system.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCHYD501 Develop a plan for a hydroponic system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research the growing requirements, risks and returns of the proposed crop
- select, design or customise a system for the site and purpose
- survey the site for suitability and environmental impacts, and gain approvals
- develop a design plan
- present a design plan to clients

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for developing a hydroponic system plan
- advantages and disadvantages of the different equipment used in hydroponic systems
- environmental implications of the disposal of chemicals or chemical containers and the drainage of high nutrient effluent
- legislation and regulations relating to the establishment of a hydroponic system
- plant growing media choices, their properties and enterprise specifications
- technical requirements and operating parameters of recirculated and non-recirculated systems

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM201 Maintain cultural places

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain Indigenous cultural places according to Community guidelines and cultural protocols.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. This includes undertaking defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess maintenance work required	1.1 Identify works required under the management plan and enterprise procedures 1.2 Identify machine, equipment and materials necessary to carry out maintenance works 1.3 Estimate materials required for maintenance work

Element	Performance criteria
2. Prepare for maintenance	2.1 Organise machine, equipment and materials to carry out maintenance works 2.2 Prepare and assemble safety equipment and materials
3. Maintain condition of place	3.1 Undertake maintenance work according to work programs and work health and safety policies and procedures 3.2 Report presence of threats 3.3 Report evidence of deterioration and wear 3.4 Clean up site on completion of maintenance works
4. Protect cultural place	4.1 Report any evidence of damage to place to supervisor 4.2 Report any breach of legislation or enterprise regulations to supervisor 4.3 Maintain protective barriers and signs

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM201A Maintain cultural places.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM201 Maintain cultural places

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess the level of work required to maintain the cultural place
- prepare for and carry out maintenance activities in accordance with organisational, cultural and environmental requirements
- report deterioration or damage to place to supervisor
- report incidents of breaches of legislation including vandalism
- apply work health and safety practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- potential threats to area
- techniques of site maintenance and protection
- range of maintenance works undertaken on cultural sites
- enterprise procedures relating to the reporting of deterioration or damage to place or reporting of incidents

Assessment Conditions

Assessment must comply with Community protocols and guidelines and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM202 Observe and report plants or animals

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to observe, record and report on the presence of plants or animals against criteria provided by a supervisor or as required under legislation or regulations.

All work is performed according to Community guidelines and cultural protocols.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. This includes undertaking defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and organise observations	1.1 Prepare a defined process for observation and seek agreement from supervisor 1.2 Obtain equipment for observation 1.3 Note requirements of legislation, protection agreements and enterprise procedures for species
2. Collect and record information	2.1 Identify and record presence of plants or animals, according to enterprise requirements 2.2 Collect plants or animal samples according to enterprise requirements and animal welfare codes of practice, where applicable 2.3 Follow protection and quarantine requirements under legislation, protection agreements and enterprise procedures for biosecurity 2.4 Make sure observation activities minimise degradation and disturbance to the environment, plants and animals 2.5 Carry out observation activities in accordance with work health and safety policies and procedures
3. Report data	3.1 Record and organise information on observed plants or animals according to enterprise recording and database arrangements 3.2 Communicate information to supervisors 3.3 Plot and describe locations of an organism using maps, Global Positioning System (GPS) and grid references

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM202A Observe and report plants and/or animals.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM202 Observe and report plants or animals

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- observe and accurately identify species of animals or plants in a natural area
- record and report observations in required format
- carry out a survey of plants and animals in a natural area in a manner that minimises disruption or degradation to the environment
- apply work health and safety practices in the context of own work
- use maps or GPS to accurately plot or describe locations

Knowledge Evidence

The candidate must demonstrate knowledge of:

- criteria used to group species
- common, Indigenous and scientific names of plants or animals
- biological species occurring in the study area
- undesirable plants (weeds) and animals
- the basic requirements for ensuring the welfare of animals included in the observation activity described in the relevant Codes of Practice, if animals are being observed

Assessment Conditions

Assessment must comply with community protocols and guidelines and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for assessment.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM203 Record information about Country

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to record information and knowledge on Country from both an Indigenous and non-Indigenous perspective according to Community guidelines and cultural protocols.

This unit applies to working individually and also within a hierarchy of management and with others in a culturally appropriate way.

Individuals undertake defined activities and work in a structured context exercising limited autonomy with some accountability for own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Collect information	1.1 Determine boundaries and extent of Country

Element	Performance criteria
	1.2 Identify and record plant and animal species by Indigenous or common name 1.3 Identify and record special features and sites of Country 1.4 Determine relationships of plants and animals from Indigenous land and sea management and cultural perspectives 1.5 Collect information on relevant management practices for Country 1.6 Determine history of dispossession from Community sources and available literature 1.7 Determine simple food chains relevant to Country 1.8 Follow work health and safety policies and procedures when collecting information on Country
2. Review changes	2.1 Identify environmental changes since dispossession and the impacts of these changes on plant and animal communities 2.2 Document environmental trends and the impacts to Country 2.3 Record land and sea management practices that address environmental change
3. Document information	3.1 Record historical and cultural information about Country 3.2 Provide access to information to those who are authorised according to Community guidelines and protocols 3.3 Recognise and record ownership of information 3.4 Document conditions and parameters for using information

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM203A Record information about country.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM203 Record information about Country

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- record details of plant and animal species according to enterprise procedures
- record information on Indigenous culture and history for Country
- document environmental changes and trends according to enterprise procedures
- collect and use information according to Community guidelines and protocols
- complete all documentation to enterprise standards, using Indigenous names or standard industry terminology, where appropriate
- apply work health and safety practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- designated areas and features of Country
- local Indigenous or common names for plants and animals
- relationships between plants and animals and Indigenous culture
- protocols and customs relating to disclosure of knowledge about Country

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM302 Provide appropriate information on cultural knowledge

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to investigate the maintenance of cultural knowledge by Indigenous people and provide this knowledge to others, if permitted by cultural authorities. All work is performed according to Community guidelines and cultural protocols.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Investigate cultural knowledge	1.1 Obtain cultural knowledge from an appropriate person within the Community 1.2 Determine and record key principles, values and practices of cultural knowledge 1.3 Define the relationship between cultural knowledge and management of Country 1.4 Establish ownership of and parameters for transferring cultural knowledge
2. Identify locations and patterns of plants and animals in a specific area	2.1 Identify and document relationships between land, rivers, lakes and sea management practices and seasonal cycles in an accessible record 2.2 Use common and Indigenous names to describe plants and animals 2.3 Note relationships between spirituality and people to complement the accessible record
3. Identify plants, animals and resources used for medicine and food	3.1 Identify and record bush foods and medicines for a specific area 3.2 Use common and Indigenous names to describe plants and animals 3.3 Collect plant and animal samples for future identification in accordance with legislative requirements, enterprise procedures and environmentally sustainable practices and animal welfare codes of practice, where applicable 3.4 Follow work health and safety policies and procedures when working on Country 3.5 Define and document issues in relation to Indigenous access and use
4. Relate information on cultural knowledge to others	4.1 Provide information on cultural knowledge to those who are authorised to possess that knowledge 4.2 Relate information on cultural knowledge in an appropriate format and medium 4.3 Refer requests for disclosure of information on cultural heritage that infringes intellectual property rights of a group or Community to appropriate persons 4.4 Decline requests for disclosure of information on aspects of cultural knowledge by unauthorised individuals

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM302A Provide appropriate information on cultural knowledge.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM302 Provide appropriate information on cultural knowledge

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- access and provide appropriate information on cultural knowledge
- investigate cultural knowledge in accordance with cultural protocols
- determine relationships between land features, seasons and spirituality
- identify plants, animals and resources used for medicine and food in a given area
- provide information on cultural knowledge in accordance with cultural protocols
- follow cultural protocols when carrying out work
- collect plant and animal samples in accordance with legislative requirements and animal welfare codes of practice, where appropriate
- apply environmentally sustainable work practices when working on Country
- identify individuals who are authorised to possess cultural knowledge
- use common and Indigenous names for plants and animals
- apply work health and safety practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- plant and animal uses and significance relating to a particular Community, group or region
- common and Indigenous names for plants and animals significant to the Community
- cultural protocols relevant to region, Community and scope and type of cultural knowledge
- role and rights of Indigenous peoples in maintaining and controlling cultural knowledge

- Indigenous protocols for identifying individuals who are authorised to possess cultural knowledge
- intellectual and cultural property rights
- the basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM305 Work with an Aboriginal Community or organisation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to work with an Aboriginal Community or organisation while demonstrating an awareness of Aboriginal identity, history and spirituality.

All work is performed according to Community guidelines and cultural protocols.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Define Australian	1.1 Determine major characteristics of the social structures of a

Element	Performance criteria
history from an Aboriginal cultural and Community perspective	specific Aboriginal Community 1.2 Identify impacts on Aboriginal social structures following European colonisation 1.3 Record examples of resistance to European colonisation 1.4 Document positive and negative effects of European colonisation 1.5 Determine various approaches and resources which can be employed in order to identify cultural authorities for specific Country and Community 1.6 Research contemporary Aboriginal social, economic and political trends in the context of Community life
2. Outline strategies for working with Aboriginal organisations and people	2.1 Acknowledge and consider differences in working within Aboriginal and non-Aboriginal Communities and organisations 2.2 Identify Aboriginal ways of working 2.3 Recognise potential conflicts 2.4 Identify and implement strategies for minimisation of conflicts
3. Operate effectively in a job role working with an Aboriginal Community or organisation	3.1 Observe Aboriginal cultural protocols according to Community and organisational guidelines and procedures 3.2 Respect Community traditions and customs 3.3 Build and maintain productive relationships within the Aboriginal Community and organisation 3.4 Create and give mutual respect as evidenced by effective engagement and shared outcomes with the Community and organisation over time 3.5 Obtain and value feedback on personal work performance, interpersonal ways of relating, and adherence to Aboriginal cultural protocols

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM305A Work with an Aboriginal Community or organisation.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM305 Work with an Aboriginal Community or organisation

Modification History

Release Number	TP Version	Comments
1	RGRv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- work within and between Aboriginal and non-Aboriginal social structures
- demonstrate empathy and respect in working with Aboriginal Communities and organisations
- build effective and productive working relationships with Aboriginal people and Communities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Aboriginal history, cultural values and interpersonal and Community protocols
- social structures of the Aboriginal Community
- Aboriginal cultural customs and heritage of local Communities
- key aspects of Aboriginal history and impact of European colonisation on Community and individuals

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM306 Follow Aboriginal cultural protocols

Modification History

Release Number	TP Version	Comments
1	RGRv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop awareness of, and apply the protocols of Aboriginal culture, including the need to identify the appropriate persons when approaching a Community and the cultural and social protocols associated with that task.

This unit applies to following cultural protocols and details the specific cultural, gender and kinship sensitivities of working in Aboriginal Communities and on Country with diverse cultural requirements.

The unit applies to individuals working with lore/law men and women either autonomously or under the supervision and cultural authority of Traditional Owners or Elders for specific Country. They work under broad direction and use discretion and judgement in the selection and use of available resources.

This unit is also applicable to the work of repatriation workers and anthropologists. However, cultural beliefs and practices vary across locations and communities however and in some situations non-Aboriginal learners may not be able to access the cultural knowledge and materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify Aboriginal beliefs and associated cultural protocols for different Country	1.1 Identify and document the importance of Aboriginal beliefs and the relationship of these beliefs with cultural landscapes 1.2 Recognise and respect gender roles 1.3 Respect language groups and kinship networks within specific Country that inform the basis of social relationships and Community roles 1.4 Recognise and respect cultural taboos, factions and avoidance relationships 1.5 Acknowledge the rights of individuals within Communities and on Country to hold specific knowledge and ceremony 1.6 Acknowledge the rights of individuals within Communities and on Country to hold responsibility for Aboriginal sites and the cultural rules associated with sharing that knowledge 1.7 Respect and affirm the inherent diversity that exists within cultures and Communities
2. Identify Aboriginal cultural authorities for specific Country in culturally appropriate ways	2.1 Apply various approaches and resources to identify cultural authorities for specific Country 2.2 Research difficulties in identifying cultural authorities in various states and territories 2.3 Identify and consult appropriate cultural authorities 2.4 Apply the identification by cultural authorities of appropriate persons within Communities who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and places 2.5 Respect and implement the provision of advice by cultural authorities 2.6 Respect and implement rights and responsibilities associated with cultural knowledge, story, song, site and ceremony 2.7 Support cultural knowledge holders to inform the decision-making process to determine the cultural significance of objects and places 2.8 Acknowledge and respect traditional knowledge and practices in managing Country and environment

Element	Performance criteria
3. Relate Aboriginal cultural protocols to Community consultation	3.1 Identify and record key protocols required for Aboriginal Community consultation 3.2 Acknowledge determination of Aboriginal people as the primary source of cultural information 3.3 Select participants for and methods of consultation in accordance with decisions made by Aboriginal cultural authorities 3.4 Use communication approaches that place Aboriginal cultural protocols and values as a principal concern 3.5 Undertake participation in Community consultation following appropriate cultural protocols for that Country and Community
4. Recognise and administer Aboriginal ownership and intellectual property rights	4.1 Establish ownership rights and intellectual property rights of Aboriginal cultural information and material 4.2 Recognise rights to control cultural heritage by Aboriginal people as custodians of Aboriginal culture 4.3 Apply access restrictions to cultural knowledge, information and material 4.4 Follow confidentiality measures for recording secret, sacred materials 4.5 Determine and administer the ownership of cultural knowledge, information and material 4.6 Report any identified infringement of copyright
5. Access, transfer and use cultural information and material	5.1 Seek permissions from cultural authorities, relevant individuals and organisations for access and use of Aboriginal cultural information and material 5.2 Abide by decisions from cultural authorities, relevant individuals and organisations to deny permission for access and use of Aboriginal cultural information and material 5.3 Establish and implement parameters for processes of transfer of cultural knowledge 5.4 Observe cultural restrictions on Aboriginal cultural information and Aboriginal material 5.5 Acknowledge and observe copyright and licensing issues related to access and use of Aboriginal cultural material and cultural information 5.6 Follow Aboriginal cultural requirements for communications about, and display, access and handling of Aboriginal cultural information and material 5.7 Acknowledge and agree to the implications of consent for accessing, transferring and using cultural information and materials
6. Use appropriate	6.1 Observe appropriate use of personal protocols for addressing and

Element	Performance criteria
personal and social protocols	<p>greeting persons, personal contact, and gestures</p> <p>6.2 Allow respect for local and Community traditions to guide personal presentation and conduct</p> <p>6.3 Use personal communication styles such as language, non-verbal communication, discussion, meaning, questioning, eye contact and silence that reflect the customs and idioms of the local Community</p> <p>6.4 Maintain a flexible attitude to address situations of cultural diversity and cross-cultural differences</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM306A Follow Aboriginal cultural protocols.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM306 Follow Aboriginal cultural protocols

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and consult with appropriate cultural authorities for a Community, place or site
- identify cultural information, material and cultural expression that is appropriate to be shared
- identify groups to be consulted in relation to owners or custodians of cultural and Community knowledge, information and/or material
- follow cultural protocols for consultation, research and recording information about particular Communities
- show respect and cultural sensitivity towards Aboriginal people, their beliefs, customs, values, lore/law, ceremonies and history

Knowledge Evidence

The candidate must demonstrate knowledge of:

- cultural diversity within Aboriginal Communities
- the cultural rights and responsibilities when using Community knowledge, information and material
- Aboriginal cultural values and interpersonal and Community protocols
- authentic and authoritative sources for Aboriginal cultural information, material and expression able to be accessed and shared
- customs, history, protocols of the Community with which they are working

Assessment Conditions

Assessment of this unit must be conducted by recognised and appropriate Community Elders and/or Custodians with appropriate assessor qualifications or co-assessed by a qualified assessor in cooperation and discussion with an appropriate with Community Elders and/or Custodians.

Assessors must satisfy the current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM307 Implement Aboriginal cultural burning practices

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to use traditional Aboriginal controlled burning practices on Country to manage natural and cultural resources.

This unit applies to Aboriginal sites workers and Land Managers who carry out burns on Country as part of their job role. They work under broad direction and use discretion and judgement in the selection and use of available resources.

The unit involves and requires a high level of awareness and experience with Aboriginal culture and communities and the need to observe Aboriginal cultural protocols. It is expected that this work will be undertaken as part of a team working under supervision in most cases.

Cultural beliefs and practices vary across locations and communities and in some situations non-Aboriginal learners may not be able to access the cultural knowledge and/or materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan burn activities	1.1 Develop working relationships that will assist in the planning and implementation of traditional Aboriginal cultural burning on Country with stakeholders 1.2 Identify and consult appropriate cultural authorities and obtain approval to be on Country 1.3 Obtain cultural knowledge through the appropriate knowledge holder or Cultural Manager 1.4 Identify ceremonial requirements for fire practices necessary for inclusion in burn plan 1.5 Develop a burning plan and schedule for the target area based on traditional cultural knowledge of seasonal conditions, historical information on burns, Aboriginal ceremonial requirements, legislative requirements, environmental sustainability, biosecurity and work health and safety considerations and safety concerns 1.6 Advise local fire services and agencies of proposed burn plan
2. Protect life, property and conserve fauna and flora species in burn area	2.1 Implement burn according to Aboriginal cultural burning techniques and consistent with the burn plan and schedule 2.2 Exclude visitors from target areas, entertainment areas and areas possibly affected by smoke or risk from escaping fire 2.3 Advise neighbours and agencies of the intention to burn to ensure safety and maintain client relations 2.4 Protect Aboriginal sites, assets and entertainment areas according to Aboriginal cultural protocols and fire industry practices 2.5 Apply fire breaks to the area to maintain control of the fire and burn intensity 2.6 Remove animals in danger in the burn area before starting the controlled cultural burn, where possible 2.7 Assess flora for impact on fire-sensitive communities and species
3. Burn defined areas	3.1 Maintain radio communication with other workers in the area throughout the burn 3.2 Use appropriate personal protective equipment and follow work health and safety policies and procedures during the burn 3.3 Assess weather forecasts and current weather conditions to determine appropriate conditions and timing for burn 3.4 Use appropriate ignition techniques, patterns, fire control and safety procedures to conduct the burn

Element	Performance criteria
	3.5 Apply fire to targeted areas according to Aboriginal cultural burning techniques, traditional frequency and organisation requirements 3.6 Identify targeted areas defined by burn specification or limiting factors 3.7 Check area to ensure all sections have received required burn in accordance with the burning plan 3.8 Complete and record assessment of burn 3.9 Monitor burning area to avoid wildfire outbreaks 3.10 Assess seasonal conditions and life cycles of flora and fauna for the end of fire practices

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM307A Implement Aboriginal cultural burning practices.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM307 Implement Aboriginal cultural burning practices

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated on at least one occasion.

The candidate must provide evidence that they can:

- identify appropriate cultural authorities for a Community, place or for a site
- develop working relationships with Aboriginal and non-Aboriginal stakeholders
- apply traditional Aboriginal cultural burning techniques
- follow burn plans and control burning operations according to enterprise procedures to:
- protect Aboriginal sites, assets and entertainment areas to Community protocols and requirements
- protect life, property and conserve fauna and flora species during burning
- achieve the correct intensity of burn
- maintain biosecurity
- meet environmental sustainability requirements
- adhere to organisational safety and environmental protection policies and procedures
- select existing, and construct additional fire breaks according to enterprise requirements to maintain control of fire
- ignite fires according to burn plan and enterprise procedures
- use radio communication according to enterprise procedures
- apply appropriate animal welfare practices when handling and moving animals in preparation for the burn
- follow work health and safety policies and procedures throughout the burn process to protect self and others

Knowledge Evidence

The candidate must demonstrate knowledge of:

- cultural Authorities within the Community
- traditional Aboriginal rationale and techniques for cultural burning
- the life cycles of flora and fauna of forests/plantations and effect of burning operations
- required intensity and appropriate frequency of fire
- sequence, location and pattern of recent and historical fire burns
- Aboriginal ceremonial requirements for fire practices
- seasonal cycle of weather patterns
- work health and safety policies and procedures
- emergency procedures
- ignition techniques and patterns
- fire control techniques
- emergency fire services
- organisational and enterprise policies and procedures for conservation of places of cultural significance
- key concepts of Cultural and Heritage Legislation or National Parks and Wildlife Service (NPWS) legislation relevant to own prescribed burns
- sustainable environmental practices
- safety procedures for conducting fire operations
- enterprise work health and safety policies and procedures for carrying out controlled burning
- basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM308 Identify traditional customs and land rights for an Indigenous Community

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify and propose the use of traditional customs by Indigenous people in caring for Country. All work is performed according to Community guidelines and cultural protocols.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify the role of traditional customs in Indigenous Communities	1.1 Identify traditional customs of the Community related to own work 1.2 Identify traditional gender-specific roles that relate to Indigenous land management practices

Element	Performance criteria
	1.3 Identify changes that have occurred in traditional customs related to management of Country since European settlement
2. Outline impact of native title rights and interests recognised under non-Indigenous law	2.1 Outline briefly the process to be followed in applying for native title 2.2 Provide an overview to Community members of the difference between native title rights and land rights 2.3 Identify the type of rights the Community has, or wants for a particular land or site 2.4 Identify organisations or groups who can provide advice relating to native title land claims
3. Propose appropriate applications of traditional customs	3.1 Identify examples of successful native title applications 3.2 Identify the traditional customs used for decision making processes in the Community 3.3 Determine traditional activities or sacred sites relevant to native title land

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM308 Identify traditional customs and land rights for an Indigenous Community

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify the role of traditional customs in Indigenous Communities
- outline impact of native title rights and interests recognised under non-indigenous law
- propose appropriate applications of traditional customs

Knowledge Evidence

The candidate must demonstrate knowledge of:

- cultural customs and heritage for the Community
- sources for legal advice on native title rights and interests
- outline of process required to apply for native title rights
- traditional customs for decision making
- gender roles of Community for land management practices

The candidate must demonstrate a basic understanding of relevant state land and resources acts/legislation.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM401 Protect places of cultural significance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to protect places of cultural significance.

This unit applies to those whose work includes protecting Indigenous peoples' places of culture in co-operation with stakeholders and protecting places of cultural significance with reference to Indigenous Communities or line management. A high level of cultural awareness and the need to observe cultural protocols are important in parts of the process.

This unit applies to individuals who demonstrate autonomy, judgement and limited responsibility for others in known or changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Communicate with	1.1 Develop working relationships with stakeholders that assist in the

Element	Performance criteria
stakeholders	management of culturally significant places 1.2 Develop communication approaches that accommodate cultural views and observe cultural protocols 1.3 Obtain views on the way in which the cultural significance and resources can be conserved and used 1.4 Convey views obtained into enterprise and park or reserve planning process
2. Conserve significance	2.1 Use enterprise conservation policies and plans with stakeholder views to plan ongoing conservation actions 2.2 Develop and implement operational activities to implement the conservation strategies and plans in a culturally sensitive manner 2.3 Organise staff to implement conservation actions that minimise deterioration and damage 2.4 Supervise staff during restoration projects 2.5 Obtain resources for conservation and restoration activities 2.6 Make submissions to the enterprise budget process for funds to implement the conservation and restoration activities
3. Manage incident	3.1 Develop operational plans to manage incidents consistent with plan of management and risk management analysis 3.2 Assign staff responsibilities to manage types of incidents 3.3 Obtain and maintain equipment and supplies to enable effective response to incidents 3.4 Train staff in the management of the types of incidents for which they have an involvement, including related work health and safety and environmental sustainability policies and procedures 3.5 Make submissions to the enterprise budget process for funds to support the incident management activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM401A Protect places of cultural significance.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM401 Protect places of cultural significance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop working relationships with stakeholders in cultural sites
- canvass views in a culturally sensitive way to determine the heritage value and preservation issues of a cultural site
- observe cultural protocols in dealing with stakeholders and land managers
- develop action and emergency plans to mitigate and manage the risk of damaging incidents or loss of heritage value
- document the submissions to implement conservation and restoration activities and support the incident management activities
- supervise staff in performing restoration and conservation activities
- include work health and safety procedures in operational plans and training to manage incidents
- ensure plans include environmentally sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise policies and procedures for conservation of places of cultural significance
- operational activities engaged for conservation, restoration and risk management
- Indigenous protocols, consultation processes and networks
- budgetary and financial approval processes

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM402 Report on place of potential cultural significance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to report on place of potential cultural significance.

This unit applies to those whose job role includes investigating and reporting on places of potential cultural significance in consultation with stakeholders and Traditional Owners. A high level of cultural awareness and the need to observe cultural protocols are important parts of the process.

This unit applies to individuals who demonstrate autonomy, judgement and limited responsibility for others in known or changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Investigate evidence of	1.1 Manage movement through park or reserve to minimise

Element	Performance criteria
past activities	<p>disturbance and degradation to the park or reserve and surrounding environments, especially in relation to known and potential places of significance, and to comply with Community protocols, legislative requirements, Codes of Practice and the park or reserve management strategy and plan</p> <p>1.2 Survey an area for land forms including caves and potential sites for rock art, flora, fauna and settings to identify potential places of previous human activity which could have cultural or natural significance</p> <p>1.3 Assess and document signs of previous human activity</p> <p>1.4 Review park or reserve activities in light of potential significance and maintain, modify or halt activities to maintain significance</p> <p>1.5 Where activities have affected or may affect the potential significance, record the original state of the non-Indigenous activities at the place, or for Indigenous activities, seek directions from Indigenous stakeholders or cultural reference group</p> <p>1.6 Where potential places of significance are identified, take field notes of location in terms of other park or reserve features, survey markers or global positioning</p> <p>1.7 Record reasons for identifying potential significance</p> <p>1.8 Refer location to Indigenous stakeholders or cultural reference group for further directions</p> <p>1.9 Follow work health and safety policies and procedures when working on site</p>
2. Implement interim protection measures	<p>2.1 Identify immediate and longer-term threats or risks associated with the conservation of the place according to enterprise guidelines, relevant charters and Codes of Practice</p> <p>2.2 Take interim protective measures to avoid degradation, disturbance, and deterioration and any action which may break cultural protocols</p> <p>2.3 Modify existing activities of personnel and visitors to reduce or eliminate risks to the significance of the place</p>
3. Report observation	<p>3.1 Collate and record field notes on location</p> <p>3.2 Review enterprise records to reveal any existing information about the non-Indigenous significance of the place</p> <p>3.3 Report finding and interim protective measures to colleagues</p> <p>3.4 Seek advice on the potential cultural and natural significance of the place and any additional required protective measures from Indigenous stakeholders or cultural reference group, from specialists in or external to the enterprise</p> <p>3.5 Document and report interim assessment of place according to legislative requirements, best practice guidelines and Codes of</p>

Element	Performance criteria
	Practice

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM402A Report on place of potential cultural significance.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM402 Report on place of potential cultural significance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- survey an area for landforms and sites that may hold cultural significance
- assess any physical signs, and source local information on human activity in the area, to indicate culturally significant sites
- ensure cultural protocols are followed
- maintain field notes on the location and details of sites in accordance with enterprise procedures or guidelines
- implement protection measures pending further investigation
- develop and document an assessment report for places of cultural significance according to enterprise and legislative standards
- apply work health and safety practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of cultural places in land based, coastal zones and marine parks or reserves
- threats to cultural places from both natural causes and human activity
- application of State or Territory and Commonwealth legislation relevant to Indigenous land management
- enterprise procedures for reporting places of potential significance
- relevant protection measures for significant sites
- methods of locating position of site

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM403 Contribute to the proposal for a negotiated outcome for a given area of Country

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to contribute to the proposal for a negotiated outcome for a given area of Country.

This unit applies to those whose job role includes supporting and contributing to development proposals that relate to a given area of Country. It applies to individuals who demonstrate autonomy, judgement and limited responsibility for others in known or changing contexts.

All work is undertaken according to Community protocols.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Gather information to	1.1 Identify, gather, record and store information required to support

Element	Performance criteria
<p>support the proposal for a negotiated outcome for a given area of land</p>	<p>the proposal development</p> <p>1.2 Review legislation and government policies and plans of management relevant to the proposal</p> <p>1.3 Undertake consultation about the proposal with stakeholders, including Traditional Owners or custodians, community groups and other organisations involved in land and sea management in the specified area</p> <p>1.4 Identify areas of conflict between the different legislation and traditional customs and notify the proposal developer</p> <p>1.5 Define the scope of available alternatives for management and/or resolution of land, rivers, lakes and sea use issues</p> <p>1.6 Outline a description of the types of circumstances under which different alternatives can be applied</p> <p>1.7 Define processes that can be used to implement alternatives and relate to both mainstream ideas and culturally appropriate approaches for the area</p>
<p>2. Contribute to the development of the proposal</p>	<p>2.1 Identify, gather, record, store and analyse information relating to the expected outcomes of the proposal</p> <p>2.2 Identify, gather, record, store and analyse information relating to the proposal development</p> <p>2.3 Relate information about the expected outcomes of the proposal to stakeholders during proposal development process</p> <p>2.4 Identify main characteristics of any relevant State or Territory and Commonwealth Native Title Legislation and Lands Acts that apply to given area of Country</p> <p>2.5 Detail the implications of Native Title on given area of Country using appropriate formats</p>
<p>3. Provide feedback on the development of proposal</p>	<p>3.1 Provide oral or written feedback on the proposal to the proposal developer according to enterprise requirements</p> <p>3.2 Explain the proposal to key stakeholders using appropriate formats according to Community protocols</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM403A Contribute to the proposal for a negotiated outcome for a given area of country.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM403 Contribute to the proposal for a negotiated outcome for a given area of Country

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- gather information to support the proposal for a negotiated outcome for a given area of land
- conduct culturally appropriate consultation with stakeholders
- determine the relevance and implications of applicable acts and legislation
- contribute to the development of the proposal
- provide feedback on the development of proposal

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant State land and sea resources acts and legislation
- relevant Local Government land and sea resources acts and legislation
- relevant Commonwealth land and sea resources acts and legislation
- roles of different organisations in land and sea management
- the existence of alternative forms of input and control in land and sea management

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM404 Record and document Community history

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to record and document Community history.

All work is done according to enterprise procedures and cultural protocols.

This unit applies to individuals who demonstrate autonomy, judgement and limited responsibility for others in known or changing contexts.

Cultural beliefs and practices vary across locations and communities and in some situations non-Aboriginal learners may not be able to access the cultural knowledge or materials required to achieve competency in this unit due to restrictions that are applied to non-Aboriginal people gaining access to cultural knowledge, material or sites. In these situations the Registered Training Organisation will be required to make alternative arrangements for learners that are still consistent with the delivery and assessment requirements for this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for interviews with Community members	1.1 Determine purpose and objectives of interviews 1.2 Research background to topic and events 1.3 Identify people (narrators) who may be able to provide information on topic and events 1.4 Develop process for individual or group sessions with narrators according to topic and events to be covered 1.5 Develop and check basic questions for interviews with narrators 1.6 Obtain and check equipment, locations and other resources 1.7 Obtain permissions from Cultural Authority to conduct interviews about Community history and culture 1.8 Invite selected narrators
2. Conduct interviews with Community members	2.1 Explain oral history process to narrators to obtain their consent to record and use information provided 2.2 Set up and test recording equipment for operation 2.3 Identify recording media for later reference 2.4 Follow cultural protocols and use appropriate language 2.5 Use basic questions to initiate the interview 2.6 Take notes to identify supplementary questions and to support recording media 2.7 Manage interview process to obtain expected and unexpected information, including memories of incidents 2.8 Support narrator to express memories and opinions in an uncritical and positive setting 2.9 Provide positive feedback on the narrator's assistance 2.10 Manage the environment and distractions to maintain a positive response from the narrator 2.11 Manage session lengths to avoid tiring narrators and interviewer
3. Transcribe and edit information	3.1 Handle recorded media and transcripts to maintain recording quality and accuracy and security and privacy requirements 3.2 Transcribe interviews according to agreements with narrators 3.3 Provide draft written or oral transcripts to narrators for editing according to agreement with narrators 3.4 Complete editing according to narrator's wishes 3.5 Record and manage information on narrator's doubts or hesitancy on certain facts, and conflicting information between interviews

Element	Performance criteria
	separately from transcripts
4. Store records	4.1 Store recorded media and transcripts to maintain recording quality, accuracy, security and privacy requirements 4.2 Control access to records according to the narrator's wishes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM404A Record and document community history.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM404 Record and document Community history

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- record and document Community history in accordance with Community protocols and permissions
- prepare for interviews by identifying topics, people to be interviewed, questions and interview processes and checking equipment
- identify appropriate individuals or groups for interviews and obtain necessary permissions
- use communication skills and language appropriate to the interviewee
- set up all recording equipment according to enterprise procedures and needs of interview processes
- conduct either individual or group interviews to elicit a wide range of information
- take detailed notes of conversations for further reference and to help source supporting information
- transcribe and edit information, using supporting documentation where possible
- store recorded media and transcripts to maintain recording quality and accuracy and security and privacy requirements according to enterprise procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- background and context of subject areas covered in the interviews/sessions
- objectives of the natural and/or cultural resource research
- range of communication approaches
- relevant cultural protocols
- enterprise procedures relating to the recording, management and storage of oral and community information

- recording techniques and media
- set-up and use of microphones and video cameras
- use of still cameras
- Community protocols, customs and Cultural Authorities for recording cultural knowledge and history

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current Standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM405 Develop work practices to accommodate cultural identity

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop work practices to accommodate cultural identity.

This unit applies to individuals who demonstrate autonomy, judgement and limited responsibility in known or changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Investigate government policies and practices relating to Indigenous peoples since European settlement	1.1 Outline the intentions of government policies and practices since European settlement 1.2 Summarise the effects of these policies and practices on Aboriginal and Torres Strait Islander Communities 1.3 Outline how these policies and practices affected Community or

Element	Performance criteria
	family
2. Identify changes that have occurred in Indigenous societies	2.1 Summarise and document government policies operating since European settlement 2.2 Outline the changes that have occurred to Aboriginal and Torres Strait Islander societies as a result of policies and practices, the responses and the views of Indigenous groups 2.3 Describe the impacts of these changes on the Indigenous Community or family
3. Outline effects of current work related issues on Indigenous societies	3.1 Define key work related issues that impact on Aboriginal and Torres Strait Islander societies today 3.2 Describe and record the people involved in key issues 3.3 Summarise and record Community views on issues 3.4 Identify methods of addressing the keys issues 3.5 Predict the future outcomes or resolutions for these issues
4. Determine the impacts of competing factors on self-esteem and identity	4.1 Describe events and occurrences in everyday life that give rise to feelings of both positive and negative self-esteem for Indigenous personnel 4.2 Identify elements which affect self-esteem 4.3 Describe and record how these elements impact on self-esteem 4.4 Develop positive strategies for dealing with impacts on self-esteem and identity
5. Design work practices to accommodate cultural identity	5.1 Define and implement work practices which enhance individual's morale 5.2 Incorporate elements which affect self-esteem in work environments into the work practices 5.3 Consult staff in the preparation and design of these work practices according to Community and organisational protocols and guidelines 5.4 Develop positive strategies for dealing with work practices that impact on self-esteem and identity

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM405A Develop work practices to accommodate cultural identity.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM405 Develop work practices to accommodate cultural identity

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- outline effects of current work related issues for Indigenous Communities and individuals
- determine the impacts of competing factors on self-esteem and identity
- design work practices to accommodate cultural identity
- incorporate elements to boost self-esteem of Indigenous workers
- respond to workplace issues where work practices are poorly aligned to cultural identity

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Indigenous Communities with whom the organisation works, and their protocols
- cultural customs and heritage
- connections between self-esteem, identity, Community and work
- Indigenous history of particular Communities
- legislation and policies impacting on Indigenous Communities and organisations
- strategies to support development of workers' self-esteem and identity

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM501 Conduct field research into natural and cultural resources

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to conduct field research into natural resource and cultural areas for resource management and related purposes.

This unit applies to individuals who work autonomously and apply judgement and defined responsibility in known or changing contexts and within broad but established parameters.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Review existing knowledge	1.1 Examine existing information gathered through investigation and enterprise recording processes to determine key features 1.2 Review oral evidence, where it exists 1.3 Inspect sites to assess condition and availability of further information 1.4 Identify information, records and places previously destroyed or damaged or under threat as factors to be incorporated in the assessment process, strategies and plans 1.5 Assess scope of information for adequacy against the requirements of legislation, Codes of Practice, Burra Charter guidelines and protocols 1.6 Identify appropriate database, geographic information system and other electronic and manual recording systems for data collection 1.7 Identify and access sources of expertise in research environments, identification of pollution, degradation and disturbance, and national and international issues and agreements within and external to the enterprise 1.8 Identify and record areas of inadequate information
2. Identify stakeholders	2.1 Identify stakeholders in conjunction with local Communities and groups, and government documentation and interviews under the direction of a relevant cultural reference group 2.2 Investigate and record the current and relevant past land tenure for the place/area 2.3 Determine Indigenous interests through culturally appropriate approaches to regional and Community organisations and individuals 2.4 Apply proper protocols and conduct key consultations approaches to regional and Community organisations and individuals 2.5 Comply with privacy requirements according to the directions of stakeholders and legislative and enterprise requirements
3. Develop research approach	3.1 Determine objectives of the field research in conjunction with those commissioning the research 3.2 Use objectives to identify specific types of investigation, techniques to be used, and physical areas of investigation 3.3 Assess the types of investigation and techniques selected for hazards and risks in designated environment, including the work health and safety requirements, access issues, and management of the research in a range of weather and area conditions 3.4 Review existing information and data records to determine the starting points for the fieldwork 3.5 Ensure research methodology is consistent with the research objectives and in accordance with established natural resource

Element	Performance criteria
	<p>management practice</p> <p>3.6 Identify required resources to establish and maintain the research program within the required time schedules and ensure they are appropriate to the environments that will be encountered</p> <p>3.7 Select personnel for their competency in research techniques and safe operation in the expected environmental and cultural conditions</p> <p>3.8 Identify stakeholders to be included in the consultation process</p> <p>3.9 Estimate and submit costs of field research for approval</p> <p>3.10 Establish sampling and recording processes for research information according to best practice and scientific standards</p> <p>3.11 Ensure investigations comply with Burra Charter guidelines and other legislative requirements.</p>
4. Conduct field investigations	<p>4.1 Undertake consultation and fieldwork to obtain information required to meet investigation objectives</p> <p>4.2 Follow work health and safety, environmental sustainability and biosecurity policies and procedures when working in field</p> <p>4.3 Adjust previously determined methodology in light of progressive results and stakeholder feedback</p> <p>4.4 Coordinate observations, records and monitoring in accordance with scientific practice and to meet research objectives</p> <p>4.5 Determine ecological, biological and geological, microbiological and entomological diversity within specified area</p> <p>4.6 Identify and record evidence of cultural resources in area</p> <p>4.7 Identify impacts from areas external to natural and cultural resources in area under investigation</p> <p>4.8 Deploy equipment, techniques and people to carry out investigations</p> <p>4.9 Document and approve each field operation according to legislative and enterprise requirements for work in the research environment</p> <p>4.10 Source appropriate equipment and skills for the capture, management and sampling of animal species</p> <p>4.11 Analyse information for impact on previously held hypothesis and other resources</p>
5. Develop process for involving decision-makers	<p>5.1 Use information on stakeholders to determine interests held by organisations, groups and individuals and cultural dimensions</p> <p>5.2 Define issues to be addressed with interest groups</p> <p>5.3 Develop consultation and decision-making process to address the issues with individuals, groups and organisations in a culturally appropriate manner</p>

Element	Performance criteria
	5.4 Provide appropriate time for consultative processes within groups and between individuals to occur and to obtain feedback on issues 5.5 Form a decision-making group, such as cultural reference groups and other groups, where assistance is required to direct investigation, access information to address issues or review the significance of place or area
6. Report on the field investigation	6.1 Consult stakeholders on draft findings 6.2 Document the basis for the determination of outcomes to legislative requirements, the organisation's policies and practices, and international and national processes 6.3 Submit the determination of significance report to the organisation and its external review processes as required by legislation and Codes of Practice

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM501A Conduct field research into natural and cultural resources.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM501 Conduct field research into natural and cultural resources

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- use a range of electronic and manual recording systems to support research
- identify stakeholders including current tenure, Indigenous history and community interest
- review existing knowledge of national and cultural resources and sites using literature reviews, site inspections, consultation and expert advice
- develop research objectives and research design
- coordinate staff and resources for research project
- conduct field investigations to investigate impacts on fauna, flora and natural resources of the site
- facilitate a consultation and decision-making process
- report on the field investigation to enterprise and legislative requirements
- apply work health and safety practices in field investigations
- apply biosecurity measures in the context of own work
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- application of conservation legislation, charters, Codes of Practice relating to natural and cultural resource areas
- systems and processes for assessing significance
- ecology and biological diversity of the area under assessment, including aspects of living organisms, habitats and communities, and interactions between species
- geological diversity including aspects of stratigraphy, palaeontology, paedology, and soil classification of the area under assessment

- microbiology including entomology for the area under assessment
- accepted scientific processes, including conservation processes and charters
- major impacts on natural resources, such as geological settings, ecological processes, and interaction between natural and cultural processes
- monitoring requirements including fabric deterioration, damage and likely causes of deterioration and damage
- relevant legislation and agreements that apply to area, including a good understanding of the concepts and potential operation of the Burra Charter
- legislation under which enterprise operates and research is commissioned

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM502 Develop conservation strategies for cultural resources

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop conservation strategies for cultural resources.

This unit applies to those who develop conservation strategies and management policies for cultural resources as part of the overall park management and planning process. These individuals take responsibility for their own work and who provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Define components of cultural heritage significance	1.1 Define geographic and operational boundaries for conservation policy 1.2 Review and collate results of studies of cultural significance for

Element	Performance criteria
	<p>places and areas within the boundaries to develop park, reserve or region significance</p> <p>1.3 Develop limits of acceptable change in the forms of deterioration and damage to the places of cultural significance to legislative and enterprise requirements</p>
2. Review past strategies, plans and activities	<p>2.1 Compare previous strategies and plans with collated assessment of significance to determine compatibility</p> <p>2.2 Review current activities in the area to assess their compatibility with the collated assessment of significance</p> <p>2.3 Document areas of incompatibility</p>
3. Review current and potential resource uses	<p>3.1 Assess impact of current uses of the cultural resources against the set limits of acceptable change to determine success of conservation approach</p> <p>3.2 Assess feasible uses of resources against client requirements</p> <p>3.3 Develop possible changes to resource use to ensure sustainability of cultural values and environment</p>
4. Identify threats to cultural places	<p>4.1 Identify threats to cultural significance and the environment both external and internal to the area under consideration</p> <p>4.2 Make a risk assessment of all threats to determine potential impact on strategies</p> <p>4.3 Document policy changes required to address the threats</p>
5. Develop strategies for management of cultural resource	<p>5.1 Develop draft policy to address the cultural significance that meets any shortfalls in previous strategies, allows for compatible resource uses and addresses risks associated with any threats to the cultural values of the area</p> <p>5.2 Review policy to ensure compliance with Burra Charter guidelines</p> <p>5.3 Conduct consultations with stakeholders on draft policy in accordance with legislative, enterprise and good practice requirements</p> <p>5.4 Ensure consultations comply with cultural protocols and enterprise approaches to stakeholders</p> <p>5.5 Finalise management strategies to reflect stakeholder views as required in legislation, government policies, enterprise strategies and procedures, and environmental sustainability requirements</p> <p>5.6 Submit strategies for approval to legislative and enterprise requirements</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM502A Develop conservation strategies for cultural resources.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM502 Develop conservation strategies for cultural resources

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- review the cultural resources in the area and level of deterioration
- assess the compatibility of current utilisation with cultural and heritage values
- investigate feasible land uses that maintain the cultural integrity of the site
- carry out a risk assessment for damage/deterioration to cultural sites
- consult with stakeholders according to cultural protocols
- develop strategies for management of cultural resources that take into account cultural and environmental requirements
- apply cultural protocols to investigation and development of policies
- apply enterprise policies and procedures to undertake assessment of resources, consultation with stakeholders and development of new policies
- apply appropriate sustainability practices to management strategies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the range of conservation strategies for cultural areas
- policies from all levels of government and within the specific region, including those under catchment plans that apply to land management practices
- the application and interpretation of Australian Natural Heritage Charter and the Burra Charter and the interpretation of the charters as they apply to use of cultural resources
- enterprise policies and procedures for carrying out investigations, consultations and development of policies
- design and implementation of consultation processes
- policy analysis and impact statements

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM503 Manage restoration of cultural places

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage the restoration of cultural places.

This unit applies to individuals who work autonomously and apply judgement and defined responsibility in known or changing contexts and within broad but established parameters. Individuals are required to manage large teams and projects.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan required restoration measures	1.1 Access prior assessment of cultural significance of place to determine range of actions 1.2 Develop short term plan of management and conservation from area strategies and plans according to legislative requirements, enterprise procedures and national and international charters

Element	Performance criteria
	1.3 Research traditional building techniques, materials and material availability to plan maintenance of fabric in traditional styles 1.4 Identify any prior works not in keeping with significance to determine appropriate maintenance actions 1.5 Determine any necessary structural engineering maintenance with experts to incorporate actions into maintenance schedule 1.6 Develop maintenance schedule to meet plan of management and conservation 1.7 Make submissions to obtain appropriate funds to complete works 1.8 Plan restoration work 1.9 Review plans to ensure compliance with Burra Charter guidelines and other legislative requirements
2. Manage restoration works	2.1 Obtain expert advice on specific maintenance works and contracts to meet requirements of management and conservation plans 2.2 Specify special building and conservation requirements in maintenance documentation to maintain significance, and use traditional building techniques, where appropriate 2.3 Supervise workers and contractors to ensure risk assessment is undertaken and work health and safety policies and procedures are followed 2.4 Inform and supervise workers to ensure significance of place is maintained and no damage or degradation is caused to environment
3. Clean-up after work	3.1 Supervise workers to ensure no damage is caused to surrounds, environment, fabric or building 3.2 Supervise workers to ensure work health and safety policies and procedures are followed 3.3 Supervise workers to remove materials, equipment and tools from place on completion of work

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM503A Manage restoration of cultural places.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM503 Manage restoration of cultural places

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- incorporate the prior assessment of significance into an operational plan
- research traditional building techniques to carry out repairs and maintenance
- seek expert advice to meet special building and conservation requirements from the plan of management
- maintain the cultural and environmental integrity of the site and surrounds during and on completion of building
- supervise the work of others to ensure compliance with restoration plan and requirements
- apply work health and safety practices in the context of own work and the work of others
- apply environmentally sustainable practices in maintenance and restoration works

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant concepts of the Burra Charter, heritage and building acts, and other relevant legislation
- conservation architecture techniques applicable to the restoration of cultural places
- interpretation of archaeological reports or assessments of Aboriginal cultural sites and artefacts
- traditional and current building practices
- project management processes
- building or maintenance requirements and specifications
- work health and safety requirements and risk management practices

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM504 Develop strategies for Indigenous land or sea management

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop strategies for contemporary land or sea management from an Indigenous perspective.

All work is undertaken according to Community guidelines and cultural protocols.

This unit applies to individuals who work autonomously and apply judgement and defined responsibility in known or changing contexts and within broad but established parameters.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research contemporary	1.1 Outline relevant contemporary Indigenous land and sea management practices

Element	Performance criteria
Indigenous land and sea management practices	1.2 Define relevant issues connected with this practice 1.3 Consult relevant and appropriate people 1.4 Identify associated issues related to contemporary Indigenous land and sea management practices 1.5 Document details of consultation and research
2. Develop management strategies for a specified area	2.1 Base strategies on contemporary Indigenous land and sea management practices, incorporating biosecurity measures, and environmentally sustainable practices 2.2 Identify priorities for management according to level of importance or threats to area 2.3 Develop new approaches to management to address priorities within the context of legislation, cultural protocols and Community needs 2.4 Develop timelines and steps for implementation of strategies 2.5 Define costs of resources, labour and materials required to action management strategies 2.6 Complete preliminary project design to identify project steps and funding requirements 2.7 Make arrangements for project implementation to enterprise requirements and legislation
3. Source and apply for funds	3.1 Identify appropriate funding sources 3.2 Make applications for funds according to legislative, Community and enterprise requirements 3.3 Ensure applications are endorsed by appropriate persons before submission
4. Consult with others on strategies, priorities and project work	4.1 Brief authorised persons on the strategies, priorities and actions planned 4.2 Train staff in new procedures developed to address strategies 4.3 Implement work health and safety policies and procedures to ensure the safety of self and staff 4.4 Develop project implementation plan in consultation with staff, appropriate persons and communities 4.5 Obtain endorsement from appropriate persons, groups and communities, and relevant government stakeholders before works start

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM504A Develop strategies for Indigenous land or sea management.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM504 Develop strategies for Indigenous land or sea management

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research contemporary Indigenous land and sea management practices
- develop management strategies for a specified area based on contemporary Indigenous land and sea management practices
- identify appropriate source of funds and apply for funds according to organisational requirements
- consult with others on strategies, priorities and project works
- develop plans to enterprise standards
- apply work health and safety practices in the context of own work
- apply biosecurity measures in the management strategies
- apply appropriate sustainability practices in the management strategies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Indigenous land/sea management practices
- cultural customs and heritage
- components of State land acts/legislation relevant to Indigenous land or sea management
- relationship between natural and cultural management processes

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM505 Map relationship of business enterprise to culture and Country

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to map the relationship of business enterprises to culture and Country.

This unit applies to individuals who work autonomously and apply judgement and defined responsibility in known or changing contexts and within broad but established parameters.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish reasons for entering or establishing business	1.1 Describe the reasons and goals for entering or establishing business 1.2 Map the relationship between culture and the reasons for entering or establishing business 1.3 Explain the business activity as it relates to the structure of

Element	Performance criteria
	Community or family grouping 1.4 Explain the business activity as it relates to Country
2. Interpret the legal parameters of the business enterprise	2.1 Define the organisational structure 2.2 Identify the legal basis and appropriate documentation for the structure 2.3 Review the documentation 2.4 Analyse the powers and authorities of the business 2.5 Describe the legal limitations and requirements
3. Investigate the roles of key positions in the enterprise and Community	3.1 Identify and list titles of key positions in the enterprise and Community 3.2 Summarise the duties of these positions 3.3 Outline the source of power or responsibility for these positions 3.4 Describe the limitations of the duties and decisions that may be made by these positions 3.5 Analyse the role of these positions in terms of the structure of the Community or family grouping 3.6 Analyse the role of these positions in the relationship to Country
4. Evaluate the decision making process as it relates to the enterprise and Community	4.1 Describe the decision making process required to be followed in the enterprise and Community 4.2 Identify the responsibilities of each position in this decision-making process 4.3 Describe decisions that have been made using this process 4.4 Evaluate the effectiveness of the decision making process 4.5 Explain the dynamics of the processes in making these decisions 4.6 Make recommendations as to how this process can be improved

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM505A Map relationship of business enterprise to culture and country.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM505 Map relationship of business enterprise to culture and Country

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- describe the goals and activities of the enterprise
- define the legal parameters of the business organisation
- analyse the positions and power relationships for decision making within an Indigenous Community
- relate Indigenous Community and business roles to the concept of Country
- make recommendations to support the concept and implementation of Indigenous management principles

Knowledge Evidence

The candidate must demonstrate knowledge of:

- national, state and local legislation that relates to business operations
- legal aspects of business structures
- constitutions and other corporate documentation
- organisational structures theories
- decision-making processes
- Community structure and protocols that impact on business operations and decision making

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM506 Operate within Community cultures and goals

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to explore and understand the culture and goals of a Community or group and operate appropriately within those parameters.

This unit applies to individuals who work autonomously and apply judgement and defined responsibility in known or changing contexts and within broad but established parameters.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify Community values	1.1 Identify Community values relevant to program activities for planning of promotional and group activities 1.2 Seek permissions and advice from Cultural Authority in accordance with Community protocols 1.3 Work with Cultural Authority to identify Community Elders or

Element	Performance criteria
	Custodians and their roles within the Community relevant to Community consultation
2. Research Community history and plans	2.1 Research history of Community relevant to program and seek permission from Community Elders and Custodians to use research in promotional, educational and group activities 2.2 Identify relevant documents, symbols, places of value and oral traditions to place program and group in local context 2.3 Identify Community plans and seek permission from Community Elders and Custodians to use plans in promotional, educational and group activities
3. Establish role of program in Community	3.1 Identify current Community social and environmental issues and plans through consultation with Community Elders and Custodians 3.2 Identify potential roles of program to Community 3.3 Manage interaction with Community to build rapport with individuals and groups 3.4 Establish and maintain consultation processes with Community members and groups in accordance with permissions and Community protocols 3.5 Maintain image of program in Community by following Community protocols, acknowledging Community concerns and promoting positive image of program

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM506A Operate within Community cultures and goals.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM506 Operate within Community cultures and goals

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- investigate a Community's culture
- identify the roles of Cultural Authorities, Elders, Custodians and other members of the Community
- follow Community protocols for consultation, promotion and use of information
- research the background and goals of Community, and their perspectives on natural resource management issues
- promote Community programs, plans and history according to permissions given by Cultural Authority, Elders or Custodians
- plan for consultation within the Community by working with their culture and goals and applying Community protocols

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Community structure or hierarchy
- research methods for investigating Community history
- current social and environment affairs for Community and wider region

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM508 Propose a negotiated outcome for a given area of Country

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a proposal for a negotiated outcome for a given area of Country. It includes conducting required research, consultation and all work according to Community and agency guidelines and best practice procedures.

This unit applies to individuals who apply autonomy, judgement and defined responsibility for others in known or changing contexts and within broad but established parameters.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify, select and define relevant issues related to the given	1.1 Identify Community, government and agency perspectives and issues likely to impact on proposals 1.2 Identify the implications and impact of issues and perspectives on

Element	Performance criteria
area of Country	<p>the given area of Country</p> <p>1.3 Recommend priority areas for further research, assessment and clarification of issues</p> <p>1.4 Define proposals for given area of Country in terms of context, issues to be addressed, expected outcomes, possible complications, precedents and key stakeholders</p> <p>1.5 Detail with the support of Elders and other key stakeholders, an outline of the scope and appropriate processes for conducting negotiated outcomes for that area of Country in accordance with Community customs and protocols</p>
2. Gather and analyse information on given area of Country	<p>2.1 Identify information required to support proposals, including cultural significance and current and historical land use and management</p> <p>2.2 Gather, analyse and interpret information required to support proposals</p> <p>2.3 Develop an analytical framework for the development of an appropriate approach to the proposal</p> <p>2.4 Investigate and implement legislation, national and international protocols and conventions relevant to the given area of Country</p> <p>2.5 Describe the implications for own people from these examples in ways that stakeholders can understand</p>
3. Formulate and communicate proposals for given area of Country	<p>3.1 Develop a range of options for the proposal, mechanisms for implementation, monitoring and evaluation</p> <p>3.2 Communicate the range of options in a timely manner and a way which is understandable to those who are party to negotiations</p> <p>3.3 Consult with relevant people to be included in the negotiation as appropriate, and keep them informed of progress of work</p> <p>3.4 Make recommendations for options based on likely effectiveness, implementation timeframe and costs, interaction with other proposals, and consistency with government legislation and policy</p> <p>3.5 Collate examples of instances where other Indigenous peoples have used international legal systems to support environmental issues in their own Countries</p>
4. Complete a proposal for a negotiated outcome for a given area of Country	<p>4.1 Describe possible alternatives to use ensuring compatibility with legal and administrative circumstances for the area of Country</p> <p>4.2 Consult relevant people to be included in the negotiation on final draft proposal and implications for the Community</p> <p>4.3 Complete proposal following endorsement from key stakeholders for given area of Country</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM508A Propose a negotiated outcome for a given area of country.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM508 Propose a negotiated outcome for a given area of Country

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- propose a negotiated outcome for a given area of Country according to Community guidelines
- identify implications for an area of Country for government, agency and Community perspectives and issues
- gather and analyse information on a given area to develop an analytical framework for land use
- formulate and communicate proposals for given area of Country according to Community and government requirements
- document and seek endorsement for a proposal that seeks to negotiate an outcome for a given area of Country
- prepare documentation to Community, government and organisational requirements
- follow Community customs, protocols, heritage, Country and culture relevant to proposal

Knowledge Evidence

The candidate must demonstrate knowledge of:

- consultation approaches
- cultural customs and heritage of Country
- application of State land and resources acts and legislation relevant to Country
- relevant international and national conventions and agreements
- management and use of the resources of the specific area
- processes and proposals for resolving issues regarding access and use of land according to consultation outcomes and organisational procedures

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM510 Plan for successful cultural practice at work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan for culturally appropriate work practices that enable Aboriginal and non-Aboriginal practitioners to be successful in their chosen field of work or vocation.

This unit applies to individuals who manage an organisation's cultural diversity plans and directions.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCILM306 Follow Aboriginal cultural protocols

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Analyse essential features of Aboriginal families and cultures	1.1 Access and review information about Australian Aboriginal history up to the present time 1.2 Research concepts such as Dreaming, connection to Country and other Aboriginal beliefs 1.3 Identify traditional and contemporary social structures of

Element	Performance criteria
	Aboriginal families and societies 1.4 Research elements of Aboriginal societies and use to inform interactions with Aboriginal people
2. Review changes to Aboriginal societies since European settlement	2.1 Research and document colonisation and the impacts on Aboriginal peoples 2.2 Identify racist behaviours and the impact that these have had on Aboriginal peoples 2.3 Analyse personal responses to information about the positive and negative effects of colonisation 2.4 Conduct and analyse research into the impacts of colonisation, settlement and government policies on Aboriginal cultural practices
3. Identify government efforts to address continuing effects of colonisation	3.1 Investigate and analyse various policies implemented by governments in Aboriginal affairs 3.2 Identify the processes involved in government consultation with Aboriginal people, Communities and organisations 3.3 Evaluate effects of government policies in Aboriginal affairs and their implementation processes on Communities 3.4 Investigate and evaluate effectiveness of a chosen government policy through Community consultation 3.5 Develop strategies for addressing any public perception of 'special treatment' for Indigenous peoples in relation to the chosen policy in consultation with Community
4. Apply understanding of Aboriginal cultural protocols and identity to daily work routines	4.1 Identify features of Aboriginal identity and personal cultural maintenance 4.2 Analyse and use how these features are expressed in daily work life to inform workplace relationships and interactions 4.3 Identify and analyse the obligations of cultural maintenance in relation to a work issue 4.4 Apply allowances for absences due to family/seasonal cultural practices and bereavement 4.5 Work through and deal with workplace conflicts in culturally appropriate ways 4.6 Develop possible strategies for cultural maintenance in work and the workplace
5. Plan culturally appropriate work practices	5.1 Develop a vision and workplace goals for own work 5.2 Identify and discuss common culturally inappropriate work practices 5.3 Develop strategies to change these practices collaboratively 5.4 Develop an implementation and evaluation plan for the strategies

Element	Performance criteria
	5.5 Propose ways in which Aboriginal practitioners can effect change to create greater cultural awareness in the workplace

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM510A Plan for successful cultural practice at work.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM510 Plan for successful cultural practice at work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan for culturally appropriate work practices to enable Aboriginal and non-Aboriginal practitioners to be successful in their chosen field of work or vocation
- demonstrate comprehensive understanding of the essential features of Aboriginal families and culture applied in workplace relationships
- apply practices in the workplace aimed at sustaining Aboriginal cultural maintenance
- plan culturally appropriate work practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- practices in the workplace aimed at sustaining Aboriginal cultural maintenance
- culturally appropriate work practices
- history and impacts of European invasion and subsequent government policies on Aboriginal and Torres Strait Islander peoples
- the concept of cultural maintenance
- Aboriginal cultural protocols and identify as they apply to the workplace

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCILM601 Manage cultural processes in an Indigenous organisation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage cultural processes in an Indigenous organisation according to Community and organisational guidelines and best practice procedures.

This unit applies to individuals who plan and manage strategic direction for indigenous organisations with the need to work within cultural protocols and promote cultural diversity and integrity.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Indigenous Land Management (ILM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Define Indigenous management processes as compared with	1.1 Identify the framework or organisational structure for the organisation or Community 1.2 Define Indigenous management processes

Element	Performance criteria
non-indigenous strategies	1.3 Define non-indigenous management processes 1.4 Record comparisons between Indigenous management process and non-Indigenous management processes 1.5 Record and analyse differences between Indigenous management structures and non-Indigenous management processes 1.6 Investigate ways of applying Indigenous management processes to legal frameworks in which all businesses operate
2. Analyse strategies for working with non-Indigenous organisations and people	2.1 Record differences in relation to working as an Indigenous person within a non-Indigenous organisation or person 2.2 Recognise potential conflicts 2.3 Identify and implement strategies for minimisation of conflicts
3. Analyse the impact of a non-Indigenous framework on an Indigenous business structure	3.1 Identify and analyse requirements of a non-indigenous framework and legislative requirements for businesses 3.2 Identify and analyse Indigenous ways of working 3.3 Identify and record potential conflicts in relation to an Indigenous organisation working within a non-Indigenous structure 3.4 Identify and implement strategies to negotiate through the conflict
4. Develop and implement a vision for the business	4.1 Identify and evaluate strategies and planning processes 4.2 Identify goals and directions for the business 4.3 Apply goals and directions to operate within a culturally appropriate framework 4.4 Develop and present a model for planning business activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCILM601A Manage cultural processes in an Indigenous organisation.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCILM601 Manage cultural processes in an Indigenous organisation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- define and apply cultural processes within an Indigenous organisation according to Community and organisational guidelines and best practice procedures
- recognise differences between Indigenous and non-Indigenous management processes
- identify the accommodation required to meet non-Indigenous business requirements through Indigenous management processes

Knowledge Evidence

The candidate must demonstrate knowledge of:

- contemporary management practices and styles
- Indigenous management practices and styles
- business planning and strategic planning practices
- Candidates must demonstrate an in depth knowledge of legislation and regulations that apply to management of an organisation.

Assessment Conditions

Assessment must comply with Community protocols and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCINF201 Carry out basic electric fencing operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install and maintain electric fences.

All work is carried out to comply with workplace procedures, work health and safety legislation and codes, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Infrastructure (INF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for fencing	1.1 Confirm work instructions with supervisor

Element	Performance criteria
operations	1.2 Identify hazards and report to supervisor 1.3 Select tools and equipment appropriate to meet job requirements 1.4 Carry out routine pre-operational checks of tools 1.5 Identify faulty or unsafe tools and segregate for repair or replacement 1.6 Select and fit appropriate personal protective equipment
2. Carry out fencing operations	2.1 Dismantle old fencing and recover re-useable materials 2.2 Identify and carry out repair requirements 2.3 Calculate fencing wire requirements 2.4 Erect electric fences to contour 2.5 Install electric fence components
3. Complete fencing operation	3.1 Fill post holes to remove potential hazards and minimise environmental impact 3.2 Clear and tidy work site and dispose of all non-reusable materials in an environmentally responsible manner 3.3 Transport and store tools and re-usable materials 3.4 Report on further work or repair requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCINF201A Carry out basic electric fencing operations.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCINF201 Carry out basic electric fencing operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and report to supervisor
- read and interpret work plans
- calculate and measure fencing wire requirements
- erect electric fencing and install electric fencing components
- minimise environmental impact
- complete work efficiently within timeframes
- communicate with work team and supervisor
- dismantle old fencing as required
- clean up after fencing
- dismantle and transport portable electric fences
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- uses and structures of a range of electric fence types
- uses and types of standard fencing tools and materials
- common electric fencing hazards and safety precautions
- the difference between portable and mains power
- relevant legislative requirements associated with electric fencing
- enterprise work health and safety policies

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCINF202 Install, maintain and repair farm fencing

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install, maintain and repair farm fencing.

All work is carried out to comply with workplace procedures, work health and safety legislation and codes, manufacturer's specifications and sustainability practices

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Infrastructure (INF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for fencing	1.1 Confirm work instructions with supervisor

Element	Performance criteria
work	1.2 Identify hazards and report to supervisor 1.3 Select tools and equipment appropriate to meet job requirements 1.3 Carry out routine pre-operational checks of tools 1.4 Identify faulty or unsafe tools and segregate for repair or replacement 1.5 Select and fit appropriate personal protective equipment 1.6 Arrange transport of fencing materials, tools and equipment to worksite
2. Undertake fence installation	2.1 Install and secure posts and stays 2.2 String and tension wire 2.3 Attach wire netting or other fencing materials 2.4 Position and attach gates and check for their correct operation
3. Maintain and repair fencing	3.1 Identify faults or structural damage and carry out necessary repairs 3.2 Dismantle fences and recover re-useable materials 3.3 Identify and report further maintenance or repair works 3.4 Pack for reuse, or dispose of, used fencing material
4. Complete fencing work	4.1 Clear and tidy work area and dispose of all non re-useable materials in an environmentally responsible manner 4.2 Clean and store tools, personal protective equipment and re-useable materials 4.3 Complete workplace records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCINF202A Install, maintain and repair fencing.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCINF202 Install, maintain and repair farm fencing

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and following safe work practices
- select the appropriate materials and tools
- assess the fencing site for environmental impacts of the fence
- install fence posts and stays erect fences, tension fencing wire and netting, install gates and components
- undertake repairs
- record work activities
- clean up the fencing site and remove and dispose of, or recycle, waste
- use hand tools and powered fencing machinery in a safe, efficient and controlled manner

Knowledge Evidence

The candidate must demonstrate knowledge of:

- designs and purpose of a range of conventional fencing
- wire types, knots, tensions applications and limitations
- common hazards involved in fencing installation, maintenance and repair
- uses and types of fencing tools and equipment
- fencing materials manufacturers specifications and guidelines
- relevant work health and safety and environmental legislation, codes of practice and enterprise procedures

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCINF203 Maintain properties and structures

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain and repair properties and structures in situations that don't require the specialist skills of another trade.

All work is carried out to comply with workplace procedures, work health and safety legislation and codes, manufacturer's specifications and sustainability practices

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Infrastructure (INF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and confirm maintenance	1.1 Confirm work instructions with supervisor

Element	Performance criteria
requirements	1.2 Identify hazards and report to supervisor 1.3 Select and fit appropriate personal protective equipment 1.4 Inspect structures and facilities to locate and evaluate defects, deterioration and impending defects 1.5 Check property infrastructure and resources for correct operation, minor maintenance needs and damage 1.6 Confirm maintenance plan
2. Select and prepare tools, equipment and materials	2.1 Select and check tools, equipment and materials for serviceability 2.2 Identify and segregate for repair or replacement faulty or unsafe tools 2.3 Identify, assess and report existing and potential hazards to health and safety 2.4 Select and fit personal protective equipment
3. Carry out routine maintenance	3.1 Carry out routine maintenance to infrastructure, structures and facilities 3.2 Carry out minor repairs to building cladding and paint
4. Complete maintenance activities	4.1 Clean, maintain and store worksite, tools and materials 4.2 Collect, treat and dispose of or recycle unwanted materials and waste from maintenance activities 4.3 Complete workplace records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCINF203A Maintain properties and structures.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCINF203 Maintain properties and structures

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed and repairing properties and structures, in a situation that does not require the specialist skills of another trade.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and following safe work practices
- interpret and apply task instructions
- communicate with work team and supervisor
- select, prepare and safely use of a broad range of tools
- carry out routine maintenance to infrastructure, structures and facilities
- store or dispose of unused or waste materials

Knowledge Evidence

The candidate must demonstrate knowledge of:

- characteristics, capabilities and limitations of materials, equipment and tools
- operation of water taps and reticulation systems
- types of building cladding and finishes, purpose and use
- identification of defects and appropriate repair methods
- appropriate selection of repair materials
- work health and safety legislative requirements and Codes of Practice
- relevant Codes of Practice and procedures with regard to protection of the environment

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCINF204 Fabricate and repair metal or plastic structures

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake minor fabrication and repair of metal or plastic structures where the services of a specialist trades person is not necessary.

All work is carried out to comply with workplace procedures, work health and safety legislation and codes, industry practice, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Infrastructure (INF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare for fabrication or repair	1.1 Confirm work instructions with supervisor 1.2 Identify hazards and report to supervisor 1.3 Select and fit appropriate personal protective equipment 1.4 Confirm items for repair or fabrication 1.5 Select tools and equipment appropriate to job requirements 1.6 Select jointing or welding materials suitable to the job requirements
2. Assist with maintaining structures and facilities	2.1 Repair or fabricate equipment and structures 2.2 Use appropriate jointing methods
3. Complete fabrication and repair	3.1 Clean and store materials and equipment 3.2 Clean and maintain work area and remove hazardous materials in an environmentally responsible manner 3.3 Complete workplace records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCINF204A Fabricate and repair metal or plastic structures

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCINF204 Fabricate and repair metal or plastic structures

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed undertaking minor fabrication and repair of metal or plastic structures where the services of a specialist trades person is not necessary.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify job requirements and select materials, tools and equipment
- identify hazards apply safe work practices including use of personal protective equipment
- identify and use jointing methods and safe repair and fabrication techniques
- use welding and thermal cutting equipment safely
- clean up after operations

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of fabrication materials and their various applications
- range of metals and non-metal materials that may be used in fabrication and repair
- industry joining and welding techniques and fabrication and repair methods
- work health and safety requirements
- environmental codes of practice with regard to equipment operation and maintenance activities
- operating principles and operating methods for equipment
- various types of welders and respective functions
- environmental impacts and minimisation measures

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCINF301 Implement property improvement, construction and repair

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out maintenance and construction of improvements to properties.

All work is carried out to comply with workplace procedures, work health and safety legislation and codes, manufacturer's specifications and sustainability practices

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Infrastructure (INF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Assess property condition	1.1 Confirm work plan and priorities with enterprise supervisor or manager 1.2 Assess property structures for soundness 1.3 Identify and determine property improvements and maintenance requirements 1.4 Confirm any planning and permissions have been obtained where required
2. Prepare tools and equipment	2.1 Identify and arrange tools, equipment and materials for the task 2.2 Check tools and equipment for serviceability 2.3 Identify faulty or unsafe tools and equipment and segregate them for repair or replacement 2.4 Identify, assess and report hazards to health and safety 2.5 Select, use and maintain and store suitable personal protective equipment
3. Carry out property improvements	3.1 Construct, repair or dismantle property structures 3.2 Carry out basic concrete, masonry or metal repairs 3.3 Determine and carry out maintenance to roads and tracks 3.4 Comply with planning or building requirements or restrictions
4. Complete maintenance and improvement activities	4.1 Monitor, maintain and improve property structures and surrounds 4.2 Clean, maintain and store worksite, tools and equipment 4.3 Collect, treat and dispose of or recycle unwanted materials and waste from maintenance activities according to enterprise environmental requirements 4.4 Complete workplace records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCINF301A Implement property improvement, construction and repair.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCINF301 Implement property improvement, construction and repair

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a range of contexts.

The candidate must provide evidence that they can:

- identify and report hazards and use safe work practices
- confirm work plan and priorities with enterprise supervisor or manager
- assess the nature of required repairs and maintenance
- read and interpret maps, plans, site drawings and simple technical drawings
- carry out building or construction work efficiently and safely
- confirm that the completed or repaired structure meets the standard specified
- operate a broad range of tools and equipment
- complete minor earthworks to specifications
- minimise environmental impacts and dispose of waste appropriately
- estimate and calculate volumes, usage and measurements
- apply enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- machinery and equipment required to carry out property improvements, construction and repairs
- types of building materials required to carry out property improvements, construction and repairs
- concreting procedures and techniques
- wood and steel fabrication procedures
- drainage requirements around structures, tracks and roads
- legislative requirements with regard to construction and structural improvements

- types of building cladding and finishes, purpose and use
- relevant Codes of Practice with regard to protection of the environment
- work health and safety and environmental legislative and enterprise procedures

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCINF302 Plan and construct an electric fence

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan, construct and maintain an electric fence.

All work is carried out to comply with workplace procedures, work health and safety legislation and codes, manufacturer's specifications and sustainability practices

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Infrastructure (INF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine electric	1.1 Access property maps and assess fencing requirements according

Element	Performance criteria
fencing requirements	to enterprise objectives and legislative requirements 1.2 Determine equipment, materials and labour requirements and ensure estimated costings are within budgetary constraints 1.3 Compare alternative electric fencing options to ensure cost-effectiveness 1.4 Prepare fencing plan giving consideration to siting fences in relation to natural features and proposed uses
2. Prepare for construction	2.1 Seek clarification of work plan 2.2 Organise and transport tools and equipment to the work site 2.3 Confirm and arrange labour requirements if required 2.4 Assess risk and minimise potential and existing hazards appropriately
3. Construct electric fence	3.1 Select, use and maintain suitable personal protective equipment 3.2 Construct electric fence according to work plan 3.3 Attach and position gates for correct operation and function 3.4 Install energiser according to manufacturer's specifications.
4. Complete fencing operations	4.1 Check fencing for correct installation and performance 4.2 Identify and fix electric fence faults 4.3 Clear and tidy work site and dispose of all waste in an environmentally responsible manner 4.4 Transport tools and fencing equipment from the work site and check and store 4.5 Record and maintain relevant information

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCINF302A Plan and construct an electric fence.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCINF302 Plan and construct an electric fence

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop an electric fencing plan for the enterprise
- identify hazards and implement safe operating procedures
- calculate and measure fencing requirements and calculate costings off the fencing plan
- read and interpret plans and site maps and mark out fence lines
- construct an electric fence that meets specifications and the needs of the enterprise
- operate fencing tools and construction equipment
- test and monitor the electric fence for earthing and current flow, resistance and leakage
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- basic operation of electric fences including earthing and current flow, resistance and leakage
- differences between portable and mains power
- issues affecting electric fencing in relation to the whole property plan
- range of electric fencing designs, construction methods and materials
- dangers posed by electricity to personnel and livestock
- conditions under which electric fences may cause fire
- safe methods for diagnosing routine faults
- common electric fencing hazards and safety precautions
- relevant State/Territory legislation and regulations regarding electric fences
- work health and safety legislative requirements

- relevant codes of practice with regard to protection of the environment

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCINF303 Plan and construct conventional fencing

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and construct conventional fencing.

All work is carried out to comply with workplace procedures, work health and safety legislation and codes, manufacturer's specifications and sustainability practices

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Infrastructure (INF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine fencing	1.1 Determine fencing requirements

Element	Performance criteria
requirements	1.2 Prepare fencing plan giving consideration to siting fences in relation to natural features and proposed uses
2. Prepare for construction	2.1 Check proposed fencing against property maps and work plan 2.2 Identify services, structures and features which may impact on the fencing work and incorporate into the fencing plan 2.3 Organise and transport tools and equipment to the work site 2.4 Confirm and arrange labour requirements if required 2.5 Identify work health and safety hazards, assess risks and implement risk controls
3. Construct conventional fence	3.1 Select, use, maintain and store suitable personal protective equipment 3.2 Mark out and check fence lines against work plan and property maps 3.3 Construct fence according to work plan and fence design 3.4 Attach and position gates for correct operation and function
4. Complete fencing operations	4.1 Clear and tidy work site and dispose of all waste in an environmentally responsible manner 4.2 Transport tools and fencing equipment from the work site and store according to workplace procedures 4.3 Report tools and equipment faults or malfunctions 4.4 Record and maintain relevant information

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCINF303A Plan and construct conventional fencing.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCINF303 Plan and construct conventional fencing

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a range of contexts.

The candidate must provide evidence that they can:

- site the fence line according to property or land management plan
- estimate, cost and source fencing materials and arrange delivery
- identify hazards and implement safe work practices
- carry out fencing operations safely and efficiently
- construct a fence that meets specifications in plan or contract and is within tolerances for materials
- construct gate assemblies and swing gates
- string and strain wires to manufacturer's recommended tension
- use and maintain fencing machinery and equipment
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- issues affecting property fence planning and construction
- procedures for planning fencing in relation to the whole property plan
- range of fencing designs, construction methods and materials
- types of fencing construction tools and equipment
- fencing materials and costings
- common fencing hazards and safety precautions
- work health and safety legislative requirements and Codes of Practice
- relevant Codes of Practice with regard to the protection of the environment
- hazard identification, assessment and control

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCINF304 Install and terminate extra low voltage wiring systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install wiring enclosures, cable support systems, cables and accessories in electrical systems of 36 volts or less.

All work must be carried out to comply with workplace procedures, work health and safety requirements, relevant legislation and codes and manufacturer's specifications.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Infrastructure (INF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Plan and prepare for installation of extra low voltage wiring	1.1 Plan and prepare installation to ensure policies and procedures are followed, and the work is appropriately sequenced according to requirements 1.2 Consult with appropriate personnel to ensure the work is co-ordinated effectively with others on the work site 1.3 Size cables and wires to suit calculated load 1.4 Check wiring system components against job requirements 1.5 Source accessories according to established procedures and to comply with organisational and task requirements 1.6 Determine location in which specific items of accessories, apparatus and circuits are to be installed from job requirements 1.7 Obtain materials necessary to complete the work according to established procedures and checked against the job requirement 1.8 Source tools, equipment and testing devices needed to carry out the installation work, checked for correct operation and safety 1.9 Check preparatory work to ensure that it complies with requirements and no unnecessary damage has occurred
2. Install wiring systems	2.1. Follow work health and safety policies and procedures for installing electrical wiring systems 2.2. Install wiring systems to meet requirements without damage or distortion to the surrounding environment or services 2.3. Terminate accessories and connect wire as required to solenoids and controllers, according to manufacturer and enterprise requirements 2.4. Respond to unplanned events or conditions using established procedures 2.5. Obtain approval from appropriate personnel according to established procedures before any contingencies are implemented 2.6. Undertake on-going checks of the quality of the work according to established procedures
3. Check and notify completion of work	3.1. Undertake final checks to ensure the installed wiring systems conform to requirements 3.2. Test system is to ensure that it works 3.3. Notify work completion according to established procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTEQ301A Install and terminate extra low voltage wiring systems.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCINF304 Install and terminate extra low voltage wiring systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe systems of work
- read labels and signage to differentiate between extra low voltage and other electrical systems
- read and follow manufactures manuals and enterprise procedures for extra low voltage wiring
- size cables and wires to suit calculated load
- install wiring systems
- check and notify completed installation activities
- follow enterprise work health and safety procedures and safely work with extra low voltage systems

Knowledge Evidence

The candidate must demonstrate knowledge of:

- basic electricity and electrical principles relating to extra low voltage wiring
- applications, materials and techniques relevant to the industry sector
- isolation and tagging procedures
- computerised controller systems
- enterprise policies and procedures
- testing equipment and procedures
- relevant legislation and guidelines for installing extra low voltage wiring.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG101 Support irrigation work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to provide support to others undertaking irrigation works in public, commercial and domestic situations

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for irrigation work	1.1 Identify the required materials, tools and equipment according to lists provided or supervisor's instructions 1.2 Conduct checks on materials, tools and equipment with insufficient or faulty items reported to the supervisor 1.3 Demonstrate correct manual handling techniques when loading and unloading materials 1.4 Select and check suitable personal protective equipment (PPE) 1.5 Provide landscaping support according to work health and safety requirements and workplace information

Element	Performance criteria
	1.6 Identify and report workplace hazards to the supervisor
2. Undertake irrigation work as directed	2.1 Follow instructions and directions provided by supervisor and seek clarification when necessary 2.2 Undertake irrigation work in a safe and environmentally appropriate manner 2.3 Carry out interactions with other staff and customers in a positive manner 2.4 Follow enterprise policy and procedures in relation to workplace practices, handling and disposal of materials 2.5 Report problems or difficulties in completing work to required standards or timelines to supervisor
3. Handle materials and equipment	3.1 Store waste material and debris produced during irrigation work in a designated area according to supervisor's instructions 3.2 Handle and transport materials, equipment and machinery according to supervisor's instructions and enterprise guidelines 3.3 Maintain a clean and safe work site while undertaking landscaping activities
4. Clean up on completion of landscaping work	4.1 Return materials to store or dispose of according to supervisor's instructions 4.2 Clean, maintain and store tools and equipment according to manufacturer's specifications and supervisor's instructions 4.3 Make good the site according to supervisor's instructions Report work outcomes to the supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC101A Support irrigation work.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG101 Support irrigation work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply safe work practices
- clean up on completion of work
- prepare materials, tools and equipment for irrigation work
- undertake irrigation work as directed

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for supporting irrigation work
- safe work practices
- preparing for irrigation work and cleaning up on project completion
- basic construction techniques
- irrigation tools and equipment
- repair and maintenance of irrigation fittings
- work health and safety and safe work practices

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG215 Assist with low volume irrigation operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to assist with installing, operating and maintaining low volume irrigation systems. These systems use emitters such as drippers and generally use poly pipe.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work	1.1 Confirm work instructions with supervisor 1.2 Select appropriate materials, tools, equipment and machinery 1.3 Select personal protective equipment and clothing and ensure correct fit

Element	Performance criteria
	1.4 Identify manual handling and other workplace health and safety hazards 1.5 Identify the site for installation of the irrigation system
2. Install irrigation components	2.1 Prepare the site for installation works 2.2 Assemble and connect system components and test joints 2.3 Connect system to water supply 2.4 Flush and commission system 2.5 Identify and report operating and take corrective actions as directed 2.6 Maintain a clean and safe work area
3. Complete installation work	3.1 Remove waste material from the site and dispose of 3.2 Clean, maintain and store tools, equipment and machinery 3.3 Flush and commission system
4. Carry out start up and shutdown procedures as directed	4.1 Follow start-up sequence 4.2 Shut down system components in sequence 4.3 Drain system 4.4 Record irrigation activity
5. Assist with system maintenance	5.1 Check emitters for serviceability and output 5.2 Maintain delivery components 5.3 Check water supply and pumping system periodically, where required 5.4 Keep maintenance records up to date

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG215 Assist with low volume irrigation operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assemble and join irrigation system components
- carry out basic maintenance tasks
- carry out low volume irrigation operating tasks
- complete installation work
- fix identified faults
- follow directions to operate pumps, filters and valves
- install irrigation components
- look for leaks and faulty emitters
- prepare materials, tools and equipment
- recognise and report faults
- undertake site preparation tasks as directed

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practice of low volume irrigation operation
- characteristics and operation of joints, valves and emitter components
- components in low volume irrigation systems
- emitter spacing, coverage and pressure
- indicators of over and under watering
- installation techniques and procedures
- irrigation controllers
- irrigation pipes, types and sizes

- irrigation times to deliver sufficient volume without over watering
- methods and techniques of low volume irrigation installation
- operation of low volume irrigation system
- set out procedures
- system malfunctions and their likely causes
- use of recycled water and colour coding of pipes
- water requirements of relevant plants

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG216 Assist with surface irrigation operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to assist with installing, operating and maintaining surface irrigation operations.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare for work	1.1 Read and confirm work instructions 1.2 Prepare tools and equipment 1.3 Select personal protective equipment and clothing and ensure correct fit 1.4 Identify manual handling and other work health and safety

Element	Performance criteria
	hazards
2. Set up field for surface irrigation systems	2.1 Check rotobuck area for irrigation set up 2.2 Check pumps, bores and other water delivery mechanisms for irrigation set up 2.3 Position and secure tarpaulins or other water control devices as directed
3. Carry out routine maintenance activities on irrigation delivery systems	3.1 Service mechanical equipment 3.2 Flush and clean supply and distribution system 3.3 Maintain system inlets, outlets, structures and fittings 3.4 Check system is running smoothly and is free of damage, leaks and blockages in channels, drains and outlets 3.5 Clean irrigation system and ensure there is no disruption to the system
4. Undertake surface irrigation work as directed	4.1 Open and shut gates and valves 4.2 Ensure required head and water levels in head ditch are achieved and maintained to ensure sufficient water flow and availability to crops 4.3 Start or open the required number of siphons 4.4 Monitor progress of water flow in furrows 4.5 Lift siphons where irrigation is complete 4.6 Carry out irrigation change and mark 4.7 Move irrigation equipment
5. Record and report maintenance activities	5.1 Record damage and blockage caused by pests and vermin by damage type, location and the section of the system affected 5.2 Record and report damage or faulty pumps, valves, electrical components and computer systems and carry out necessary repairs 5.3 Record and report routine maintenance activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG216 Assist with surface irrigation operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out surface irrigation operating tasks as directed
- check siphons for even water flow
- look for uneven water distribution or drainage
- monitor required head and water levels in head ditch
- open and close check valves
- record and report maintenance activities and faults
- start and pull siphons
- use mechanical equipment to build and repair banks and for weed removal

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of surface irrigation
- channels, furrows, borders, fittings and outlets
- damage and problems that occur with gravity-fed irrigation systems
- environmental impacts of irrigation using water from any ground or underground source
- identification, characteristics and operation of surface irrigation structures and components
- signs of stress in plants as well as the signs of over and under-watering
- system cleaning procedures
- system malfunctions and their likely causes
- purpose and principles of surface irrigation
- weed types encountered in gravity fed irrigation systems and their control

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG217 Assist with pressurised irrigation operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to assist installing, operating and maintaining pressurised irrigation systems. These systems use sprinklers and generally use glued PVC pipe.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work	1.1 Confirm work instructions with supervisor 1.2 Select appropriate materials, tools, equipment and machinery 1.3 Select personal protective equipment and clothing and ensure correct fit

Element	Performance criteria
	1.4 Identify manual handling and other work health and safety hazards 1.5 Identify the site for installation of the irrigation system
2. Install irrigation components	2.1 Prepare the site for installation works 2.2 Lay irrigation components out 2.3 Dig or tidy trenches where required 2.4 Add or insert system components 2.5 Position and secure lines 2.6 Assist with fitting pumps and valves
3. Complete installation activities	3.1 Check the irrigation system for leaks or blockages 3.2 Identify and report problems and anomalies 3.3 Clean and store equipment, tools and materials 3.4 Collect waste and dispose of or recycle 3.5 Record workplace information in the appropriate format
4. Carry out start up and shutdown procedures as directed	4.1 Follow start-up sequence 4.2 Shut down system components in sequence 4.3 Drain system 4.4 Record irrigation activity
5. Assist with system maintenance	5.1 Check sprinklers for serviceability and output 5.2 Maintain delivery components 5.3 Check water supply and pumping system periodically, where required 5.4 Keep maintenance records up to date

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG217 Assist with pressurised irrigation operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assemble and join irrigation system components
- carry out basic maintenance tasks
- carry out irrigation operating tasks
- complete installation work
- fix identified faults
- follow directions to operate pumps, filters and valves
- look for leaks and faulty sprinklers
- prepare materials, tools and equipment
- recognise and report faults
- undertake site preparation tasks as directed

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of pressurised irrigation systems
- characteristics and operation of replaceable components of sprinkler irrigation systems
- environmental impacts of irrigation from ground or underground source
- installation techniques and procedures
- irrigation controllers
- irrigation pipes, types and sizes
- irrigation times to deliver sufficient volume without over watering
- operation of pressurised irrigation system
- set out procedures

- signs of stress in plants as well as the signs of over and under watering
- sprinkler irrigation components and their function
- sprinkler spacing, coverage and pressure
- system malfunctions and their likely causes
- types of sprinklers

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG218 Assist with pump and flow control device operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist with the installation and maintenance of pumps and flow control devices for irrigation.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare for work on pumping and flow control systems	1.1 Read work instructions relating to work activity and confirm with the supervisor 1.2 Prepare tools and equipment and use according to the supervisor's instructions 1.3 Select personal protective equipment and clothing and ensure

Element	Performance criteria
	correct fit 1.4 Identify manual handling and other work health and safety hazards and tell supervisor
2. Carry out installation and maintenance tasks for pumps and flow control devices	2.1 Carry out installation tasks as directed for pumps and flow control devices 2.2 Carry out routine inspections of flow control and metering facilities in irrigation systems 2.3 Carry out preventative maintenance and service of equipment and facilities
3. Review, record and report activities	3.1 Check, maintain and store equipment, tools and materials 3.2 Restore work site to meet environmental and workplace requirements 3.3 Record and report installation and maintenance activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG208A Assist with the installation and maintenance of pumps and flow control devices for irrigation.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG218 Assist with pump and flow control device operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret plans, charts and instructions
- perform work-related calculations
- organise equipment and materials for installation work
- use power tools and hand tools
- handle materials safely
- identify and respond to predictable operational problems

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of pump and control flow devices
- basic principles of hydraulics and the operation of flows
- capacity and limitations of equipment used on the site
- flow measurement principles and procedures
- function of control systems
- layout and performance of pipes and fittings
- lock-out procedures for mechanical and electrical installations
- types of flow control devices and their purpose
- types of pumps and their function and use

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG303 Measure irrigation delivery system performance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to measure pressure, flow and distribution uniformity of an irrigation system.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Measure irrigation system performance	1.1 Measure and record system pressures, water flow rates and pump performance parameters 1.2 Measure variations in system pressures, water flow rates and pump performance parameters where relevant and record 1.3 Inspect distribution and delivery systems and identify and fix

Element	Performance criteria
	malfunctions in system and record actions 1.4 Identify and record factors external to the system that may cause interference
2. Monitor supply of equipment and spare parts	2.1 Record supply and part usage 2.2 Monitor spare parts to ensure the supply meets demands 2.3 Make purchases within budget constraints 2.4 Report parts requirements outside of budget constraints 2.5 Record purchases and orders
3. Record and report system performance status	3.1 Record system pressures and variations 3.2 Record system flow rates and variations 3.3 Calculate and record distribution uniformity and mean application rates 3.4 Determine and record watering depth

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG303A Measure irrigation delivery system performance.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG303 Measure irrigation delivery system performance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- access and prepare data records for both print-based and computer-based data
- apply measuring and testing techniques
- calculate pressure differentials, flow rates, crop yields, estimated water usage and actual water usage
- identify adverse environmental impacts of irrigation activities and take appropriate remedial action
- use computers to record and report data

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental impacts of irrigation, using water from any ground or underground source
- measuring and monitoring procedures for factors contributing to irrigation system delivery
- soil water retention testing techniques
- water authority standards and procedures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG306 Troubleshoot irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to troubleshoot faults and blockages in irrigation systems.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Locate and identify faulty components and blockages	1.1 Determine irrigation system and component function 1.2 Check and review monitoring and maintenance records 1.3 Carry out operational tests 1.4 Identify and document faulty components and blockages

Element	Performance criteria
2. Shut down and isolate component	2.1 Apply shut down sequence and isolation procedures 2.2 Verify safe shutdown or isolation 2.3 Install safety or security lock off devices and signage
3. Replace faulty components and clear blockages	3.1 Organise access to faulty components and blockages 3.2 Remove faulty components and repair or dispose of 3.3 Select and install replacement components 3.4 Replace faulty components and clear blockages 3.5 Clear blockages or replace blocked sections
4. Return system to normal operating status	4.1 Return isolated or shutdown components to service 4.2 Carry out operational tests 4.3 Return system to normal operational set-up 4.4 Report and record repair activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG306A Troubleshoot irrigation systems.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG306 Troubleshoot irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- carry out operational tests
- identify adverse environmental impacts of irrigation activities and appropriate remedial action
- operate, maintain and repair irrigation systems
- shut down and isolate components

Knowledge Evidence

The candidate must demonstrate knowledge of:

- characteristics and operation of replaceable components of irrigation systems
- environmental impacts of irrigation using water from any ground or underground source
- isolation procedures
- purchasing procedures
- system malfunctions and their likely causes

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG308 Monitor soils under irrigation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor the impact of irrigation on the soil plant growing environment.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess the physical properties of an irrigated soil	1.1 Describe the profile of an irrigated soil 1.2 Determine soil texture and structure within the soil layers 1.3 Interpret tests for organic matter level in a soil 1.4 Test for slaking and dispersion in an irrigated soil

Element	Performance criteria
	1.5 Assess the infiltration rate for an irrigated soil 1.6 Measure soil moisture levels 1.7 Describe the impacts of cultivation and watering practices on the physical properties of a soil
2. Define soil moisture properties	2.1 Describe soil moisture tension and its role in determining water availability to plants 2.2 Assess the field capacity of an irrigated soil 2.3 Observe the wilting point for a plant species in an irrigated soil 2.4 Calculate the readily available water (RAW) in an irrigated soil
3. Monitor soil chemical properties	3.1 Interpret soil test results for salinity and sodicity levels in an irrigated soil 3.2 Interpret pH tests and the potential impact of pH on soil structure and nutrient availability
4. Assess soil health and plant growth under irrigation	4.1 Assess the risk of erosion in an irrigated soil 4.2 Assess soil biology in an irrigated soil 4.3 Establish the growing requirements for a plant species
5. Implement strategies to optimise the irrigation growing environment for plants	5.1 Carry out soil husbandry practices to reduce risks of compaction and erosion 5.2 Implement and monitor a watering schedule 5.3 Adjust the frequency of watering based on available moisture, soil properties and plant response 5.4 Report soil and plant moisture status and irrigation requirement

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG308A Monitor soils under irrigation.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG308 Monitor soils under irrigation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- adjust watering practices to meet plant needs
- apply the results of soil testing to assessing soil properties
- assess the erosion potential of an irrigated soil
- assess the health of an irrigated soil
- calculate moisture holding capacity of plants, including RAW
- conduct soil structure and texture assessment
- use soil moisture monitoring equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- adverse environmental impacts of irrigated plant production
- calculations for readily available water
- critical measures for moisture availability
- effect of dispersible soils under irrigation
- field capacity
- interpreting salinity, sodicity and pH tests
- signs moisture stress & nutrient deficiency in plants
- soil biology
- soil moisture definitions and calculations
- soil moisture monitoring procedures
- soil structure and texture
- types of erosion
- wilting point

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG309 Install irrigation pumps

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install and commission irrigation pumps.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and sequence installation tasks from instructions	1.1 Obtain drawings and specifications 1.2 Plan and sequence tasks 1.3 Select tools and equipment and check for serviceability
2. Source irrigation	2.1 Determine location of pump

Element	Performance criteria
system requirements	2.2 Identify pump base requirements 2.3 Identify, order and collect materials and equipment 2.4 Check materials and equipment for acceptable condition and compliance
3. Install and commission pumping and flow control components	3.1 Set out and construct pump base 3.2 Install pump and pump controls 3.3 Connect suction and discharge lines and flow control devices 3.4 Connect delivery and distribution components to pump 3.5 Conduct pressure testing of pumping system 3.6 Test pump
4. Complete work	4.1 Clear work area and dispose of, reuse or recycle materials 4.2 Clean, check, maintain and store tools and equipment 4.3 Restore work site to meet environmental requirements 4.4 Complete documentation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG309A Interpret and apply instructions to install pumps.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG309 Install irrigation pumps

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- follow plans, charts and instructions
- handle materials safely
- identify and respond to operational problems
- match pump output and flow rate to pipe diameter
- monitor the performance of valves
- open and close valves
- organise equipment and materials for installation work
- perform work-related calculations
- position pumps and valves
- prime and operate pumps
- set out and prepare the site
- use power tools and hand tools
- weld in both poly and steel

Knowledge Evidence

The candidate must explain:

- advantages and disadvantages of each pump type
- automatic pump switches including timers, pressure switches, irrigation controllers and flow switches
- basic principles of hydraulics (flow vs. pressure), energy loss due to friction
- characteristics and application of different valves, pipes and fittings including fixing and joining techniques and methods
- discharge and flow rates

- impellers, rotors, stators
- installation procedures for irrigation pumps
- properties of water including pressure and flow rates
- pump components and their principles of operation
- pump gauges and controls
- pump performance and pressure testing
- servicing requirements for pumps
- types of pumps and their application in irrigation, such as centrifugal, vertical turbine, submersible and propeller
- types of valves
- types suitable as booster and floating pumps

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG310 Operate and maintain irrigation pumping systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate an irrigation pumping system and maintain pumps and pumping equipment.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to maintain pumps	1.1 Obtain and interpret work requirements for the satisfactory completion of operations 1.2 Select and use materials, tools, equipment and machinery as required by the work activity 1.3 Identify work health and safety hazards, assess risks and

Element	Performance criteria
	implement suitable controls 1.4 Select, use and maintain suitable safety and personal protective equipment 1.5 Identify and arrange support required for the safe completion of the servicing and maintenance tasks 1.6 Carry out isolation and lock-out of all equipment necessary for the safe execution of tasks
2. Carry out pump maintenance	2.1 Inspect pumps and report any faults 2.2 Service and maintain pumps 2.3 Dispose of used oil, lubricant and other waste 2.4 Maintain servicing and maintenance records
3. Prepare the pumping system	3.1 Check operation and function of pump and driver 3.2 Conduct pre-start-up checks on the pumping system to ensure valves are correctly sequenced and filters are clear before commencing pumping operations, and that all safety requirements are met
4. Start up and shutdown pumping system	4.1 Operate ancillary equipment 4.2 Start up and shut down pump 4.3 Implement emergency shutdown procedures when required
5. Operate and monitor pumping and ancillary systems	5.1 Check and maintain flanges, gaskets and seals within stated operational tolerances and to avoid environmental damage 5.2 Monitor pump pressures and flows for conformance 5.3 Use amperage testing equipment to monitor and identify variations in the operating conditions of the pumping systems and equipment 5.4 Monitor pumping systems and equipment performance as well as all components to identify any signs of excessive wear and a reduction of performance 5.5 Check operational valves and valve assemblies for possible leakages 5.6 Check filter systems periodically and clean to remove any potential blockages or impurities entering the pumping system and equipment which may cause it to cavitate or malfunction during operation 5.7 Inspect and sample lubrication oil to check that operating levels are correct and to determine if any contamination has taken place which may affect the operational capacity of the pumping system and equipment 5.8 Take appropriate action resulting from checks and monitoring
6. Shut down the	6.1 Shut down injection equipment and pump

Element	Performance criteria
pumping system	6.2 Clean pumping equipment 6.3 Collect, treat and dispose of or recycle waste generated by both the pumping process and cleaning procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG310A Operate and maintain irrigation pumping systems.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG310 Operate and maintain irrigation pumping systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- adjust pump settings
- check and clear or replace filters
- check and top-up fluids, including coolants, lubricants and hydraulic oils
- check oil quality and levels
- clear blockages
- inspect and clean pumps
- lubricate pumps
- monitor pressures and flows
- prime a pump
- replace belts
- replace worn components, including pump seals, liners and impellers
- set valves and check for wear and leakages
- tension fasteners and y-belts
- use amperage testing equipment

Knowledge Evidence

The candidate must explain:

- advantages and disadvantages of each pump type
- automatic pump switches including timers, pressure switches, irrigation controllers and flow switches
- basic principles of hydraulics (flow vs. pressure)
- discharge and flow rates
- impellers, rotors and stators

- properties of water including pressure and flow rates
- pump components and their principles of operation
- pump performance and fault finding
- pumps and their application in irrigation, such as centrifugal, vertical turbine, submersible and propeller
- pumps that are suitable as booster and floating pumps
- reading pump gauges and controls
- service requirements of pumps
- valves and their uses
- workplace and equipment safety requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG315 Interpret irrigation plans and drawings

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to read and interpret plans and drawings applicable to installing irrigation systems.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Apply commonly used symbols and abbreviations	1.1 Identify, understand and apply commonly used symbols and abbreviations on plans 1.2 Identify, understand and apply common irrigation terms used on plans 1.3 Identify key features of irrigation plans, elevations and sections

Element	Performance criteria
	1.4 Identify scale, elevations and sections from drawings
2. Locate and identify key features on a site plan	2.1 Identify irrigation site from location drawings 2.2 Identify true north and system orientation from details provided on site plan 2.3 Identify key features of site plan
3. Mark out and peg the site from a plan	3.1 Mark boundaries of the site 3.2 Identify existing irrigation infrastructure on the site 3.3 Identify electricity and communications infrastructure on the site plan, mark out and implement safety procedures 3.4 Peg out pipelines and earthworks identified on the plan
4. Identify required components for installation	4.1 Annotate required pipeline components from plans and drawings 4.2 Annotate water supply, distribution and delivery components from plans and drawings 4.3 Make provision for receipt and storage of materials on site 4.4 Confirm installation requirements and details of plans and drawings with supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG315A Interpret irrigation plans and drawings.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG315 Interpret irrigation plans and drawings

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret scale and specifications from plans and drawings
- interpret symbols and abbreviations used on plans
- mark out boundaries and infrastructure position from a plan
- recognise and mark out features on a site from a plan
- translate documented requirements into on-site activities and site and structural features from two-dimensional to three-dimensional formats
- use basic industry calculations

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plan and drawing interpretation
- commonly used scales, symbols and abbreviations
- drawings and specifications relevant to the irrigation industry
- measurements, calculations and quantities
- tools, equipment and materials required from the drawings and specifications

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG325 Operate irrigation technology

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate irrigation technology as part of irrigation installation, construction and operation.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Determine work requirements and identify hazards, assess risks and implement control measures 1.2 Select required tools and equipment and check for safe operation and accuracy 1.3 Select and use suitable personal protective equipment

Element	Performance criteria
2. Operate equipment	2.1 Identify sampling points 2.2 Collect samples 2.3 Record and interpret readings and observations
3. Operate irrigation controllers and sensors	3.1 Link sensors to controllers by wiring or radio signals 3.2 Program controllers 3.3 Monitor accuracy and reliability of electronic flow control equipment and calibrate where necessary 3.4 Report discrepancies or malfunctions to management 3.5 Transport and store equipment appropriately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG325A Operate irrigation technology.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG325 Operate irrigation technology

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- check accuracy of and calibrate equipment
- maintain and check irrigation equipment for accuracy
- operate irrigation controllers and sensors
- operate pressure testing equipment
- operate soil moisture testing equipment
- operate technology to measure and monitor the irrigation system or the growing environment
- operate water metering equipment
- operate water testing equipment
- record observations and data
- record the results of testing
- take representative samples for measurement
- take samples for testing

Knowledge Evidence

The candidate must demonstrate knowledge of:

- data recording procedures
- environmental procedures for use, storage and recycling of electronic equipment and batteries
- equipment maintenance and operation
- irrigation controllers and sensors
- measurement procedures
- operational procedures

- pressure testing equipment
- safe work practices including working with low voltage wiring
- sampling techniques
- soil moisture testing equipment
- water metering equipment
- water testing equipment

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG326 Operate irrigation injection equipment

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate irrigation injection equipment.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare equipment for injection operation	1.1 Determine work requirements and identify hazards, assess risks and implement control measures 1.2 Select required tools and equipment and check for safe operation 1.3 Select and use suitable personal protective equipment 1.4 Select materials and services and confirm they are available and

Element	Performance criteria
	<p>ready for operation</p> <p>1.5 Prepare equipment and materials to meet injection requirements</p>
2. Operate the injection process	<p>2.1 Start up the injection process</p> <p>2.2 Monitor control points to confirm performance is maintained within specification</p> <p>2.3 Identify, rectify and report out-of-specification equipment performance</p> <p>2.4 Deliver injection requirements</p> <p>2.5 Put emergency procedures in place for spillage or chemical accidents</p>
3. Shut down injection equipment	<p>3.1 Shut down injection equipment</p> <p>3.2 Clean injection equipment</p> <p>3.3 Collect, treat, dispose of or recycle waste generated by both the process and cleaning procedures</p>
4. Monitor plant response and environmental impacts of injection	<p>4.1 Monitor plant response to injection</p> <p>4.2 Record and report environmental hazards of injection</p> <p>4.3 Maintain withholding periods for chemical application on food crops</p> <p>4.4 Restrict access to areas where chemicals have been applied through injection if required</p>
5. Record information	<p>5.1 Record workplace information in the appropriate format</p> <p>5.2 Record chemical application and storage details</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG326A Operate irrigation injection equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG326 Operate irrigation injection equipment

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- complete relevant calculations such as dilution rates
- handle hazardous chemicals safely
- identify injection requirements
- implement routine maintenance and minor repairs of the system
- implement routine system cleaning requirements
- monitor usage and dilution rates
- report and record corrective action
- select and prepare injection materials
- shut down equipment in response to an emergency situation
- shut down equipment in response to routine shutdown requirements
- take corrective action in response to out-of-specification results or non-compliance

Knowledge Evidence

The candidate must demonstrate knowledge of:

- backflow prevention
- basic operating principles and process control systems where relevant
- chemicals, cleaning agents and fertilisers used for injection and their purpose
- cleaning procedures
- cleaning requirements of system
- common causes of variation and corrective action required
- control points and significance and methods of monitoring
- correct chemical handling techniques
- environmental issues and controls

- label Material Data Safety (MDS) information for substances to be injected
- lock-out and tag-out procedures
- maintenance requirements of system
- procedures for prevention of backflow
- process specifications, procedures and operating parameters
- purpose and operation of equipment and instrumentation components
- recording requirements and procedures
- services required
- shutdown sequence

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG327 Implement an irrigation schedule

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement an irrigation schedule.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Interpret the irrigation schedule	1.1 Determine work requirements and identify hazards, assess risks and implement control measures 1.2 Select required tools and equipment and check for safe operation 1.3 Select and use suitable personal protective equipment 1.4 Access information on plant growing requirements

Element	Performance criteria
	1.5 Interpret moisture requirement throughout the growing season 1.6 Read the predicted seasonal moisture deficit and watering requirements and check with management 1.7 Record parameters for the irrigation system
2. Determine irrigation shifts	2.1 Subdivide the irrigated area into the smallest units capable of individual irrigation and note area and irrigation equipment characteristics for each 2.2 Define each unit for its soil irrigation capability 2.3 Define the crop and plant water requirement for each unit 2.4 Combine units requiring similar irrigation to form a shift that does not exceed the water delivery capacity of the property irrigation infrastructure 2.5 Determine the water volume required to meet irrigation needs over specified period
3. Implement irrigation schedule	3.1 Coordinate resources and brief personnel to deliver requirements 3.2 Implement watering program
4. Monitor irrigation	4.1 Inspect plants and crops for growth rate and signs of stress 4.2 Record frequency of irrigation 4.3 Measure and record water usage and confirm water allocation is not exceeded for a given period 4.4 Calculate the differences between estimated water use and actual water used 4.5 Measure water quality 4.6 Assess plant and crop growth and water use efficiency 4.7 Measure soil for readily available water 4.8 Record climate and weather conditions 4.9 Adjust watering program in response to rainfall events and changes to evapotranspiration rates
5. Record irrigation information and activities	5.1 Record plant or crop environment data 5.2 Record water usage 5.3 Record irrigation shifts 5.4 Record system process data

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG327A Implement an irrigation schedule.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG327 Implement an irrigation schedule

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- access and interpret the information in an irrigation schedule
- apply sampling techniques
- compare plant health and growth to benchmark requirements
- conduct soil moisture tests
- consult with appropriate senior personnel or consultants
- identify irrigation requirements throughout the growing season by monitoring:
 - climatic conditions
 - crop stage and requirements if applicable
 - effective root depth
 - frost risk
 - plant varietal characteristics and requirements
 - signs of plant nutrient deficiencies
 - soil moisture levels
 - soil type and depth
 - symptoms of water stress
 - water quality
 - water table level
- identify, rectify and report environmental non-compliance
- instruct irrigation system operators
- implement the irrigation schedule including consideration of:
 - application rates
 - interaction between different irrigation employees or shifts
 - maintenance programs and supplies

- materials, chemicals, services
- resources, including operators with appropriate skills
- timing and length
- liaise with other work areas
- monitor irrigation activities including:
 - environmental impact of irrigation activities
 - identifying emitter output consistency
 - identifying soil moisture content and depth to which water will reach
 - report and record problems and corrective action taken
 - take corrective action in response to out-of-specification results or non-compliance

Knowledge Evidence

The candidate must demonstrate knowledge of:

- consultation requirements and procedures
- effect of irrigation techniques on plant growth
- environmental impacts, hazards and controls for irrigation
- interpretation of routine soil moisture tests
- irrigation strategies
- principles of soil moisture monitoring including volumetric soil moisture content, percentage compared to soil moisture tension
- procedures and responsibility for reporting problems
- recording requirements and procedures
- resource requirements and availability
- sampling techniques and procedures
- testing techniques and procedures
- visual symptoms of plant nutrient deficiencies, water stress and frost
- water budgeting tools
- workplace hazards and controls

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG331 Install pressurised irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to install low and sprinkler volume irrigation systems.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Organise resources for installation work	1.1 Select and use materials, tools, equipment and machinery 1.2 Check that parts and equipment match system drawings and specifications 1.3 Carry out pre-operational and safety checks on tools, equipment and machinery

Element	Performance criteria
	1.4 Identify work health and safety hazards, assess risks and implement suitable controls 1.5 Select, use and maintain suitable safety and personal protective equipment 1.6 Identify environmental considerations of irrigation installation activities 1.7 Check water supply to ensure that it is compatible with system specifications
2. Set out and prepare site	2.1 Measure and mark out irrigation lines 2.2 Confirm trenches are at the specified depth without damage to services, facilities, features and established plants 2.3 Observe regulations relevant to the situation 2.4 Use work practices that reflect sustainable horticulture principles and respond to local community requirements
3. Install irrigation components	3.1 Interpret the irrigation system plan and, where applicable, supervise contractors and monitor work to ensure it conforms to the plan 3.2 Assemble and connect components and complete and test joints 3.3 Fit and adjust fittings and valves and secure all joints 3.4 Maintain a clean and safe work area while installation work is carried out
4. Commission irrigation system	4.1 Calibrate testing and monitoring equipment 4.2 Confirm the start-up sequence is in accordance with the operations manual 4.3 Flush system as required 4.4 Identify operating faults and take corrective where required 4.5 Record work outcomes and report to supervisor
5. Complete installation work	5.1 Finish off earthworks 5.2 Confirm the system configuration and capacity matches the installation plan 5.3 Restore site and clear materials and equipment from the site on completion of maintenance works 5.4 Clean and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG331 Install pressurised irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- calibrate testing and monitoring equipment
- commission irrigation system
- complete installation work
- organise resources for installation work
- set out and prepare the site

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of
- behaviour of water on varying terrain and soil types
- calculations for installing irrigation systems
- characteristics and operation of joints, valves and sprinkler components
- components of an irrigation system
- methods and techniques of installing irrigation
- operation of pumps and water flow rates
- soil characteristics
- soil water retention testing techniques
- water quality and water filtration techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG332 Operate pressurised irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to operate low volume and sprinkler irrigation systems.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Carry out pre-start checks	1.1 Determine work requirements and identify hazards, assess risks and implement control measures 1.2 Select required tools and equipment and check for safe operation 1.3 Select and use suitable personal protective equipment 1.4 Check water, power, fuel and lubricants to confirm all are

Element	Performance criteria
	available and the control system is operational 1.5 Prime pumps, if necessary, and open or close valves and controls as directed 1.6 Calibrate pressure and flow testing equipment 1.7 Carry out other pre-start system checks
2. Inspect and operate the system	2.1 Implement start up sequence 2.2 Check emitter spacing against the irrigation plan 2.3 Adjust water pressure as required 2.4 Keep filters clear and replace as required 2.5 Correct or repair all malfunctions, leaks and blockages and report
3. Monitor irrigation system performance	3.1 Check emitters for output 3.2 Calculate application rate of water 3.3 Check the water distribution pattern in the irrigated area 3.4 Monitor moisture levels in the root zone 3.5 Minimise environmental impacts of the operation
4. Shut down irrigation system	4.1 Apply water for sufficient time to achieve required soil moisture levels and allowing for weather conditions 4.2 Shut down system components and drain 4.3 Record and report irrigation activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG332 Operate pressurised irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess soil moisture levels
- carry out measurements for output and distribution
- measure and interpret flow rates and pressures
- monitor system effectiveness including:
 - application rates
 - depth of irrigation
 - emitter output
 - irrigation times
- pressure variations and blockages
- salinity levels and water quality
- perform shut down procedures
- read and follow operations manual and procedures
- record data
- start up the system and carrying out operational checks

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of pressurised irrigation system operation
- critical measures for moisture availability including:
 - evapotranspiration
 - field capacity
 - infiltration rates

- readily available water
- water holding capacity
- wilting point
- electrical hazards including:
 - contact with pumps, motors, other live components
 - short circuits
 - standing laterals to remove blockages
 - water spray onto power lines
- energy efficiency indicators and benchmarks for low volume irrigation
- environmental impacts of irrigation using water from any ground or underground source
- general irrigation methods for low volume systems
- main components of low volume and sprinkler irrigation systems
- principles of irrigation and the water cycle
- pump types used in irrigation systems and their operation
- shutdown sequence and flushing procedures
- soil characteristics
- soil, plant and water relationships
- water requirements of plants and crops consistent with sound environmental management

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG333 Maintain pressurised irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to implement a low volume or sprinkler irrigation maintenance program.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Interpret a low volume irrigation maintenance program	1.1 Determine the scope of maintenance 1.2 Determine the frequency of maintenance works 1.3 Establish irrigation maintenance standards 1.4 Plan and prepare maintenance works 1.5 Identify work health and safety hazards, assess risks and implement suitable controls 1.6 Identify environmental considerations of irrigation maintenance activities 1.7 Select and use suitable personal protective equipment
2. Inspect an irrigation system	2.1 Create an inspection checklist and inspect the system regularly 2.2 Identify remedial action required and undertake repairs to restore system to full effectiveness 2.3 Undertake servicing of mechanical equipment 2.4 Assess the results of maintenance works and record to ensure repairs or maintenance standards have been achieved
3. Carry out periodic system maintenance	3.1 Record damage and blockages with contaminants by damage type, location and the section of the system affected 3.2 Record and report damaged or faulty components and computer control systems and take action to effect repairs 3.3 Implement end of season maintenance procedures 3.4 Implement routine and preventative maintenance procedures
4. Record and report maintenance activities	4.1 Restore site and clear materials and equipment from the site on completion of maintenance works 4.2 Complete maintenance and servicing records 4.3 Record parts removed or replaced 4.4 Record or report faults and breakages

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG333 Maintain pressurised irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- check connections and controllers
- check sprinkler/emitter output and function
- confirm operational pressures
- ensure proper operation of automatic flush valves
- interpret and apply maintenance procedures
- remove, service and replace valves and filters
- test irrigation equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of irrigation system maintenance
- characteristics and operation of pipes, joints, valves, emitters
- common operational and maintenance problems
- components of an irrigation system
- operation of pumps and water flow rates
- sprinkler/low volume irrigation system components

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG334 Operate and maintain gravity fed irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to install, operate and maintain surface irrigation structures and components.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Install surface irrigation systems	1.1 Check water supply is compatible with system specifications 1.2 Interpret plan, mark out structures and peg earthworks 1.3 Prepare and maintain beds, diversion and conveyancing structures 1.4 Install diversion and conveyancing structures, channels and beds

Element	Performance criteria
	1.5 Prepare bed surface with roto-buck 1.6 Test structures for configuration, flow rates and capacity
2. Complete water measurement and tail-water works	2.1 Install water measurement structures 2.2 Install channels and tail water storages 2.3 Install pumping equipment, lines and filters 2.4 Confirm that the system configuration and capacity matches the installation plan 2.5 Finish off earthworks and structures
3. Operate pumps and siphons	3.1 Prime pumps and open or close valves and controls 3.2 Position and set up pipes, system equipment and outlets 3.3 Prime and start siphons and other delivery mechanisms 3.4 Implement start up sequence and slowly build up water levels and pressure 3.5 Check pressure at the head-works and control valves 3.6 Distribute water evenly to the targeted areas with minimal wastage and run-off 3.7 Irrigate area and observe time lag between shut down and end of watering to minimise run-off and deep percolation
4. Measure and interpret water levels, flow rates and volume of water used	4.1 Monitor and maintain head water levels 4.2 Confirm that all water outlets are operating correctly 4.3 Replace or clear blocked inlets and outlets 4.4 Measure and record flow rates and water usage 4.5 Implement irrigation changes as required
5. Monitor drainage and tail-water systems	5.1 Monitor water intake, conveyance and distribution, drainage and tail-water 5.2 Check water reuse systems for clearance and freedom from weeds 5.3 Monitor pumps, if used, during operation, clear rubbish from outlets and backflush pump
6. Inspect and maintain a surface irrigation system	6.1 Record damage and blockages with contaminants by damage type, location and the section of the system affected 6.2 Record and report damaged or faulty pumps, valves, electrical components and computer control systems and take action to effect repairs 6.3 Service water measuring, diversion and conveyancing, and distribution structures 6.4 Carry out vegetation control to keep all system components clear 6.5 Undertake servicing and repair of mechanical equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG334 Operate and maintain gravity fed irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- adjust and monitor check valves
- build and maintain irrigation structures, channels and beds
- carry out running repairs on irrigation delivery and drainage systems
- carry out shut down procedures, clean equipment and dispose of waste
- check pressure at the head works and control valves
- check the serviceability of siphons
- identify variations in water flow and distribution
- inspect irrigation systems
- install pumps and pipelines
- measure water usage
- perform system commissioning tasks
- prepare irrigation beds
- remove and replace gates, slides and doors
- remove and replace valves and filters
- start and move siphons and spiles and check flow
- start up the system
- undertake minor repairs of equipment
- use roto-buck for bed preparation

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of surface irrigation

- behaviour of water on varying terrain and soil types
- calculations for installing surface irrigation systems
- characteristics and operation of components
- components of a surface irrigation system
- environmental impacts of surface irrigation installation
- soil characteristics
- soil water retention testing techniques
- water quality and water filtration techniques
- common operational and maintenance problems
- common operational problems
- environmental impacts of irrigation maintenance
- maintenance requirements – routine and end of season
- surface irrigation system components
- weed control methods

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG335 Operate and maintain moving irrigation system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to install, operate and maintain movable irrigation systems.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Install a moving sprinkler irrigation system	1.1 Select required materials, tools, equipment and machinery 1.2 Join span pipes with correctly tensioned bolts 1.3 Connect V-jack trusses in sequence to bow the span 1.4 Connect goose necks and hose connectors

Element	Performance criteria
	1.5 Fit pre-cut drop hoses and connect sprinklers
2. Complete assembly of moving sprinkler components	2.1 Assemble sprinklers, pressure regulators and hose directors 2.2 Fit gear box and control panel 2.3 Fit and tension wheels
3. Assist in commissioning a moving sprinkler irrigation system	3.1 Connect and start pumping system and flush as required 3.2 Calibrate testing and monitoring equipment to manufacturer specifications
4. Operate the system	4.1 Prime pumps, open or close valves and controls and begin the start-up sequence 4.2 Check emitter spacing 4.3 Monitor and service the transport mechanism 4.4 Check the irrigation controller for programming and efficiency 4.5 Correct or repair all malfunctions, leaks and blockages
5. Monitor the irrigation operation	5.1 Implement the irrigation schedule and monitor soil profile for wetting 5.2 Measure sprinkler performance using catch cans 5.3 Measure flow rates using containers of known volume 5.4 Measure operating pressures using pressure gauges 5.5 Check the irrigated area for wheel ruts and other signs of waterlogging
6. Carry out system maintenance	6.1 Record damage and blockages with contaminants by damage type, location and the section of the system affected 6.2 Record and report damaged or faulty pumps, valves, sprinklers, electrical components and computer control systems and take action to effect repairs 6.3 Measure outlet pressure, flow rate and energy use and record on a regular basis 6.4 Inspect and maintain drive mechanism, frames and trusses 6.5 Implement end of season maintenance procedures 6.6 Implement routine and preventative maintenance procedures 6.7 Implement storage procedures for irrigation components
7. Shut down the system in response to irrigation indicators	7.1 Apply water for sufficient time to achieve required soil moisture levels and allowing for weather conditions 7.2 Shut down system components and drain 7.3 Check drainage and treatment systems 7.4 Record and report irrigation activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG335 Operate and maintain moving irrigation system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- change engine oil and filter
- check all bolts for correct torques
- check for malfunctioning sprinklers
- check injection pump and safety equipment operation
- complete regular and end of season maintenance tasks
- fit control panel and wheels
- grease drive shafts on pump and motor
- inspect lift base and arms for any stress marks or cracks
- measure and interpret flow rates and pressures
- monitor system effectiveness
- operate pressure and flow testing equipment
- read and follow operations manuals and irrigation schedules
- shut down, clean equipment and dispose of waste
- start-up system and carry out operational checks
- take and record measurements of output and efficiency
- tension span pipes with V-jack trusses
- use control systems

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of moving irrigation system installation, operation and maintenance

- behaviour of water on varying terrain and soil types
- calculations used when installing irrigation systems
- common operational and maintenance problems
- components of a moving sprinkler irrigation system and their maintenance requirements
- installing a moving sprinkler irrigation
- irrigation methods for moving sprinkler systems
- maintenance requirements for moving sprinkler systems
- monitoring soil compaction and drainage
- moving sprinkler irrigation maintenance
- pump used in moving sprinkler irrigation systems and their operation
- shutdown sequence
- soil water retention testing techniques
- soil, plant and water relationships
- water quality and water filtration techniques
- water requirements of plants and crops consistent with sound environmental management

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG402 Determine hydraulic parameters for an irrigation system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to determine hydraulic parameters for an irrigation system.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Confirm water delivery specifications for irrigation system	1.1 Confirm soil characteristics and determine hydraulic properties 1.2 Determine plant and crop water requirements for various stages of growth 1.3 Calculate peak water requirements for each area to be irrigated
2. Determine pressures required to deliver required amount of water over specified area	2.1 Determine static pressures between water source and delivery points 2.2 Calculate dynamic pressure necessary to achieve required water volume
3. Analyse technical drawings to determine pressure losses through system	3.1 Calculate losses resulting from fittings, laterals and elevation differences 3.2 Determine losses resulting from flow through canals, culverts and pipes of varying sizes and diameters within a system 3.3 Calculate total friction loss 3.4 Determine hydraulic parameters for system
4. Select system components to deliver water efficiently	4.1 Select water delivery components to achieve the most efficient delivery rate and pressure 4.2 Select compatible flow direction and control components with pipes that will achieve minimal friction losses

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG402A Determine hydraulic parameters for an irrigation system.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG402 Determine hydraulic parameters for an irrigation system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- apply hydraulic principles to manual and computerised irrigation systems
- calculate pressures, flows, velocities and friction losses
- determine efficiency of the system with varying system components
- identify adverse environmental impacts of irrigation activities and appropriate remedial action
- read contour maps and interpret elevations and distances

Knowledge Evidence

The candidate must demonstrate knowledge of:

- calculate pressure loss due to irrigation components
- calculate pumping requirements
- hydraulic principles such as static and dynamic pressure, pressure loss, friction loss, flow rate and velocity, effect of gradient on flow rate, contact time and drainage
- irrigation system components
- types and pressure ratings for pipes, fittings and outlets

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG404 Implement an irrigation-related environmental protection program

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement an irrigation related environmental protection program.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Provide information to workers involved in	1.1 Provide information on the irrigation and drainage environmental plan to all workers and explained in detail

Element	Performance criteria
irrigation and related work	1.2 Explain the relevant codes of practice, legislation and regulations and their application to all workers 1.3 Explain and demonstrate information about known risks to the environment and work practices associated with irrigation practices and related activities 1.4 Explain and demonstrate the organisation’s environmental record systems and procedures 1.5 Identify environmental protection induction and training needs and make arrangements to fulfil those needs
2. Implement and monitor procedures for identifying risks to the environment and maintaining effective control measures	2.1 Identify and report risks to the environment so that adequate risk assessment and control measures can be implemented 2.2 Implement work procedures to control risks to the environment and carry out regular monitoring to ensure ongoing adherence and effectiveness of risk control 2.3 Identify inadequacies in existing risk control measures and raise measures to reduce exposure to environmental pollution events through improved work processes and procedures with the owner or manager 2.4 Identify and report inadequacies in allocation of resources to ensure environmental protection
3. Implement procedures for responding to potential and actual environmental pollution events	3.1 Implement procedures for responding to potential and actual pollution events to ensure that prompt and effective control action is taken 3.2 Investigate and report pollution events 3.3 Calculate stormwater control requirements 3.4 Discuss suitable measures to prevent recurrence and minimise risk of pollution events with the owner or manager, and implement revised procedures where necessary
4. Implement and monitor procedures for maintaining environmental protection record	4.1 Identify gaps in record keeping systems and rectify 4.2 Maintain environmental protection records 4.3 Monitor record keeping systems to ensure compliance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG404A Implement an irrigation-related environmental protection program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG404 Implement an irrigation-related environmental protection program

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply and comply with environmental requirements
- calculate stormwater control requirements
- explain and demonstrate the organisation's environmental record systems and procedures
- identify adverse environmental impacts of irrigation activities and taking appropriate remedial action
- provide and explain information on the irrigation and drainage environmental plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental impacts of irrigation, using water from any ground or underground source
- environmental legislation, regulations and guidelines
- work health and safety procedures relating to investigation of irrigation-related hazards and implementation of an environmental protection program

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG408 Schedule irrigations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to determine the timing and amount of each irrigation to meet crop or plant needs and environmental requirements.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor crop and plant water use	1.1 Estimate or measure water use from one or more systems 1.2 Accumulate water as a soil water deficit in the root zone
2. Apply a measured	2.1 Predict a pre-determined deficit using a scheduling system

Element	Performance criteria
amount of water	2.2 Apply irrigation to partly or fully replace the deficit 2.3 Increase water quantities where appropriate to ensure dilution and transport of toxic solutes below the root zone
3. Assess efficacy of irrigation and repeat cycles of irrigation	3.1 Measure the effectiveness of irrigation application with in-field equipment 3.2 Adjust the estimated soil moisture level in scheduling system to match that measured 3.3 Recalibrate the scheduling system where necessary 3.4 Repeat cycles of irrigation until schedule is correctly established
4. Record irrigation and scheduling parameters	4.1 Record each irrigation and significant rainfall event, plus other appropriate parameters used in scheduling system 4.2 Estimate and record drainage amount below root zone at each irrigation 4.3 Record system performance data
5. Plan for extremes of weather	5.1 Modify estimated deficits to cater for any prolonged saturation following heavy rainfall 5.2 Alter shift areas, and where applicable, application rates, to suit appropriate irrigation schedules that minimise frost damage 5.3 Implement strategies involving prioritising of plants and crops and intermittent irrigation at times of extreme heat

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG408A Schedule irrigations.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG408 Schedule irrigations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply a measured amount of water
- assess the efficacy of irrigation and repeat cycles of irrigation
- incorporate data from in-field equipment and remote monitoring sources into scheduling systems that compute irrigation requirement
- monitor crop and plant water use
- plan for extremes of weather
- record irrigation and scheduling parameters
- use and maintain in-field equipment that monitors the plant environment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- in-field irrigation reticulation performance and its capacity limits
- inter-relationship between plant, soil and the aerial environments in the determination of water budgets
- physical soil characteristics such as infiltration rate, water holding capacity and wetted volume in the root zone
- plant and crop response to moisture stress at different stages of growth
- possible adverse impacts on the crop and environment from inefficient scheduling or unpredictable weather effects
- recognition of moisture stress effects (sometimes desired) on plants
- relevant environmental policies and procedures
- water authority standards and procedures
- water quality monitoring methods and acceptable quality limits

- weather forecasting of extreme weather events such as heat waves, frosts and storms, and appropriate contingency tactics to minimise impacts

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG410 Select and manage pumping systems for irrigation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate and maintain irrigation pumping systems.

High voltage electrical work must be carried out by a qualified electrician.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify irrigation system requirements from the irrigation design	1.1 Identify the components of an irrigation pumping system 1.2 Determine the water source and height of pull for water into the system 1.3 Determine the water output for irrigation 1.4 Calculate the total friction loss of irrigation components
2. Select pump according to type, installation, range of flow rates, operating head and delivery distance	2.1 Select the basic type of pump based on the pump task and placement and the power source 2.2 Calculate the total operating head required 2.3 Calculate the required discharge for the pump based on the irrigation output required and friction losses in the system 2.4 Determine the speed and power requirements of the pump motor 2.5 Determine the limiting suction lift of the pump 2.6 Interpret pump performance curves when selecting an efficient irrigation pump 2.7 Determine the size of the impeller from the pump curve
3. Supervise installation of pumps	3.1 Ensure pump is sited as close as possible to water source and is level 3.2 Verify pump is properly anchored and connections are airtight 3.3 Confirm pump and motor connection are correctly aligned and motor is ventilated 3.4 Verify filters and valves are correctly fitted and orientated 3.5 Check pump is connected to the irrigation controller if required
4. Oversee commissioning and testing of pumping system	4.1 Develop pre-start and start up procedures 4.2 Check delivery performance and verify power usage and water output against requirements and pump specifications 4.3 Ensure pumping system is checked for leakages and cavitation 4.4 Determine that pumping system is operating effectively
5. Develop maintenance procedures for the pumping system	5.1 Develop routine maintenance procedures to rectify the effects of normal wear 5.2 Develop periodic inspection checklists to assist in maintenance scheduling 5.3 Carry out pump overhaul or repairs 5.4 Keep pump maintenance records, including details of the pump and all pumping system components for ordering
6. Carry out troubleshooting on pumping systems	6.1 Investigate lack of discharge or pressure and change settings or components 6.2 Investigate loss of water suction and make alterations to placement or fix leakages 6.3 Investigate cavitation in pumps and change settings or

Element	Performance criteria
	components 6.4 Investigate excessive power consumption and review design and pump selection and check for mechanical defects

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG410A Select and manage pumping systems for irrigation.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG410 Select and manage pumping systems for irrigation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- identify irrigation system requirements from the irrigation design
- select pump according to type, installation, range of flow rates, operating head and delivery distance
- supervise installation of pumps
- develop maintenance procedures for the pumping system
- monitor the performance of pumps, valves and filters
- carry out troubleshooting on pumping systems
- calculate pumping requirements and pressure loss due to irrigation components
- identify adverse environmental impacts of irrigation pumping activities and take appropriate remedial action

Knowledge Evidence

The candidate must demonstrate knowledge of:

- advantages and disadvantages of each pump type
- application of mechanical, hydraulic and electrical principles
- automatic pump switches including:
 - flow switches
 - irrigation controllers
 - pressure switches
 - timers
- cavitation - cause and effect
- discharge and flow rates
- environmental procedures for installing and maintaining irrigation pumping systems

- installation factors including:
- adequate space, head room, ventilation and lighting
- correct alignment procedures of pump and motor shafts with direct coupled units
- provision for adjustment and ease of dismantling
- levelling and alignment processes
- overhaul or repair operations
- properties of water including pressure and flow rates
- pump components and their principles of operation
- pump efficiency, performance and pressure testing
- pump positioning (driver alignment and suction length)
- routine preventative maintenance
- selection factors for pumps including:
- source of water and lift
- the required pumping flow rate and pressure
- the total dynamic head
- the total suction head
- sources of information and the processes for the calculation of material requirements and flow rates
- statutory and authority requirements related to the installation of commissioning of irrigation pumping systems
- types of impellers and their use
- types of pumps and application in irrigation including:
- centrifugal
- propeller
- submersible
- vertical turbine
- types of pumps suitable as booster and floating pumps
- types of valves
- work health and safety legislation

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG415 Interpret and apply irrigation designs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to interpret the irrigation design for an installation site.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify the key features on an irrigation design	1.1 Identify and apply commonly used symbols and abbreviations on plans 1.2 Identify and apply common irrigation terms used on plans 1.3 Identify key features of irrigation plans, elevations and sections

Element	Performance criteria
	1.4 Identify scale, elevations and sections from drawings
2. Define the placement and function of the irrigation system	2.1 Interpret the plans, drawings and specifications for an irrigation design 2.2 Identify the proposed purpose and capacity of the irrigation system 2.3 Position the designed system in relation to the landscape of the site 2.4 Identify environmental impacts of the irrigation system, and its installation 2.5 Prepare 'as constructed' drawings
3. Mark out structures	3.1 Mark the boundaries of the site 3.2 Identify existing irrigation infrastructure on the site 3.3 Identify electricity and communications infrastructure on the site plan, mark out and develop safety procedures 3.4 Mark out remnant vegetation to be retained 3.5 Identify and peg out proposed pipelines 3.6 Identify and peg out proposed irrigation structures
4. Estimate earth moving requirements for construction	4.1 Interpret earthworks drawings and take levels 4.2 Estimate the amount of earth to be relocated or removed from the site 4.3 Confirm the sequence of earthworks and communicate to relevant staff 4.4 List and quantify materials required for irrigation structures 4.5 Verify construction requirements with designer
5. Select pumps and system components	5.1 Interpret design specifications for water volume, pressure and delivery pattern required 5.2 Select pumping system 5.3 Select irrigation system components 5.4 Verify component selection with designer
6. Mark out locations of all components	6.1 Define the sequence of operations for installation 6.2 Identify the delivery and storage area for components 6.3 Identify the placement of all components
7. Develop instructions for staff	7.1 Include environmental hazards and strategies in instructions 7.2 Document the sequence of activities and work duties 7.3 Discuss work health and safety hazards and risk controls with staff 7.4 Provide a construction schedule to staff

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG415A Interpret and apply irrigation designs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG415 Interpret and apply irrigation designs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- read contour maps and interpret elevations and distances
- mark out procedures
- interpret technical drawings and site plans
- calculate pressures, flows, velocities and friction losses
- determine efficiency of the system with varying system components

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of irrigation design interpretation
- erosion control and design principles
- how to interpret plans and general and technical specifications
- hydraulic calculations
- levels and levelling
- principles of native topsoil conservation and protection
- pumps and pumping system components
- relevant work health and safety and environmental requirements
- selection of water pumping and distribution components delivery based on specifications and requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG422 Manage a moving sprinkler irrigation system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage a moving irrigation system.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Ensure the moving sprinkler irrigation system is prepared for operation	1.1 Assess staff training needs for carrying out pre-start checks and routine servicing and arrange training for those that require it 1.2 Program or adjust the irrigation controller to meet the required schedule

Element	Performance criteria
	1.3 Develop procedures for adjusting valves and checking filters and emitters
2. Develop and implement start-up and shutdown procedures	2.1 Develop start-up procedures for a low volume irrigation system 2.2 Develop shut down sequence and isolation procedures 2.3 Install safety or security lock off devices and signage 2.4 Provide instructions for flushing the system as required
3. Carry out trouble shooting for faults and blockages	3.1 Arrange access to faulty components and blockages 3.2 Remove faulty components from the system and repair or dispose of in an environmentally responsible way 3.3 Select appropriate replaceable components and install
4. Measure performance of a moving sprinkler irrigation system	4.1 Identify and record variations in pressures 4.2 Measure and record water flow rates 4.3 Identify and record variations in water flow and distribution 4.4 Measure and record pump performance parameters as necessary 4.5 Measure and record variations in pump performance parameters where relevant 4.6 Inspect distribution and delivery systems and identify and fix malfunctions in system and record actions 4.7 Identify and record factors external to the system that may cause interference
5. Review system performance status	5.1 Record system pressures and variations 5.2 Record system flow rates and variations 5.3 Calculate and record distribution uniformity and mean application rates 5.4 Determine and record watering depth 5.5 Calculate energy use and water efficiency and compare to industry benchmarks

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG422A Manage a moving sprinkler irrigation system.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG422 Manage a moving sprinkler irrigation system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop and supervise procedures for starting up, carrying out operational checks and shutting down
- measure, interpret and adjust flow rates and pressures
- measure output and efficiency of an irrigation system
- monitor system effectiveness:
 - application rates
 - depth of irrigation
 - infiltration and runoff
 - irrigation times
 - pressure variations and blockages
 - salinity levels and water quality
 - soil moisture levels
 - sprinkler coverage and output
- use records to review an irrigation system

Knowledge Evidence

The candidate must demonstrate knowledge of:

- best practices for reducing environmental impacts of irrigation
- component specifications
- critical measures for moisture availability:
 - field capacity
 - readily available water

- wilting point
- energy efficiency indicators/ benchmarks for moving sprinkler irrigation:
- Application Efficiency
- Average Application Rate
- Instantaneous Application Rate
- environmental hazards of runoff and compaction
- environmental impacts of irrigation using water from any ground or underground source
- general irrigation methods for moving sprinkler systems
- irrigation schedules
- main components of moving sprinkler irrigation systems
- monitoring soil compaction and drainage
- moving sprinkler irrigation technologies
- physical soil characteristics such as infiltration rate, water holding capacity and wetted volume in the root zone
- pump types used in moving sprinkler irrigation systems and their output and efficiency ratings
- pump types used in moving sprinkler irrigation systems and their operation
- servicing and maintenance of travelling mechanism
- soil moisture testing techniques
- soil, plant and water relationships
- water requirements of plants/crops consistent with sound environmental management

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG426 Evaluate water supply for irrigation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to evaluate a water supply for irrigation.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine water needs for irrigation	1.1 Determine the water needs of plants to be irrigated 1.2 Calculate the permeability of the soil and deep drainage losses 1.3 Calculate evapotranspiration rates through the growing season

Element	Performance criteria
	1.4 Calculate soil water deficits throughout the season based on expected rainfall 1.5 Calculate the amount of irrigation water required through the growing season
2. Assess a water source for water quality	2.1 Test water source for electrical conductivity and analyse results 2.2 Test water source for ionic composition and analyse results 2.3 Test water source for biological composition and analyse results
3. Determine cost and availability of alternative water sources	3.1 Evaluate water availability and access requirements for water sources 3.2 Cost capital expenditure requirements 3.3 Cost operating expenditure requirements 3.4 Investigate regulatory requirements for purchasing irrigation water and incorporate into business planning
4. Complete water sourcing or acquisition arrangements	4.1 Make contractual arrangements for purchase or sourcing of water 4.2 Plan for short term purchasing or selling of water depending on seasonal conditions if necessary

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG426A Evaluate water supply for irrigation.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG426 Evaluate water supply for irrigation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- analyse results for electrical conductivity and ionic composition of irrigation water
- apply principles of hydraulics to the selection of irrigation systems, legal access and structures
- calculate capital and operating expenditure for a water supply system
- calculate water losses in an irrigation system
- compare costs for different water sources
- estimate the irrigation requirements of plants
- take water samples

Knowledge Evidence

The candidate must demonstrate knowledge of:

- capital and operating expenditure calculations to source water
- climatic factors in irrigation development, rainfall, evaporation, evapotranspiration and hydrology
- conveyance and disposal of drained effluent
- cost benefit analysis
- efficiency of irrigation systems and long-term viability
- environmental and energy-use implications of resource utilisation and development
- irrigation drainage, seepage, surface and subsurface drainage systems
- irrigation scheduling, soil moisture measurement
- management planning and operation of water allocations
- operations and maintenance requirements

- plant physiology and plant water use, transpiration crop water requirements in terms of water quality and quantity
- plant water requirements in terms of water quality and frequency of supply
- re-use systems, management of irrigation systems
- salinity and ionic composition impacts on soil structure and plant growth
- selection of irrigation systems
- soils and water, soil moisture retention and movement, plant root zones and development, infiltration and leaching
- types of irrigation systems
- water legislation
- water supply potential for the development of irrigation systems

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG431 Supervise irrigation system installation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to coordinate and supervise the construction and installation of a range of irrigation systems.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop and implement construction procedures	1.1 Develop employment and contract management procedures 1.2 Develop procedures for controlling and recording site deliveries 1.3 Develop procedures for recording the hire of plant and equipment 1.4 Determine work health and safety procedures, including risk

Element	Performance criteria
	assessment 1.5 Notify client, authorities and agencies of the schedule of works 1.6 Develop procedures for dealing with environmental issues associated with construction work
2. Interpret the irrigation system design for the site	2.1 Determine the purpose, scale and required output of the irrigation system 2.2 Assess the landscape of the site 2.3 Determine construction requirements and verify with the designer 2.4 Select components to meet design specifications and site requirements
3. Organise resource requirements	3.1 Nominate tasks and timelines and the required resources for each 3.2 Organise labour requirements 3.3 Verify and check parts and equipment delivered to the site 3.4 Select and maintain equipment and machinery 3.5 Allocate jobs and tasks to the work team 3.6 Carry out safety induction for the task and site
4. Supervise construction work	4.1 Interpret plan and supervise construction work 4.2 Confirm site is prepared and set out appropriately 4.3 Confirm the correct lay out of the main lateral line 4.4 Supervise the insertion of sub-mains and flushing manifold 4.5 Supervise the installation of risers, emitters and other components
5. Complete installation work and test components	5.1 Connect water supply 5.2 Check emitters for optimal coverage and efficiency 5.3 Set valves to allow water to targeted areas 5.4 Start up and flush the system 5.5 Attach measuring devices and controllers to the system
6. Commission system	6.1 Identify operating faults and take corrective action to meet design specifications 6.2 Calibrate testing and monitoring equipment 6.3 Carry out testing procedures and record 6.4 Hand over system in operating order

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG431 Supervise irrigation system installation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- conduct work health and safety risk assessment
- develop operational procedures
- implement employment procedures
- interpret irrigation designs
- supervise installation tasks such as:
 - assembling sprinklers, pressure regulators and hose directors
 - checking operating specifications for pressures and flow rates
 - completing installation work and testing components
 - installing irrigation components
 - installing power and pumping plant
 - laying and joining sprinkler lateral pipelines
 - laying and joining supply and distribution pipeline
 - pressure testing the system
 - setting out and preparing site
 - setting up irrigation controllers
 - undertaking start-up procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of irrigation system installation supervision
- behaviour of water on varying terrain and soil types
- calculations for installing low volume irrigation systems

- characteristics and operation of joints, valves and sprinkler components
- commissioning procedures
- design interpretation
- distribution uniformity
- employment procedures
- licensing requirements for electrical work
- operating specifications for pressures and flow rates
- project management principles
- pump capacity
- safe work practices for construction
- setting up fertigation equipment
- setting up irrigation controllers
- soil water retention testing techniques
- start-up procedures
- types of pumps and water flow rates
- volume and pressure requirements
- water quality and water filtration techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG432 Supervise irrigation system maintenance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to supervise irrigation maintenance work.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a maintenance program for an irrigation system	1.1 Establish the maintenance requirements for irrigation components and structures 1.2 Establish the maintenance requirements for the irrigation site 1.3 Determine the frequency of maintenance activities required and

Element	Performance criteria
	develop a schedule 1.4 Calculate the costs of maintenance activities in terms of required staff, materials and equipment 1.5 Assess the work health and safety risks associated with the maintenance program and implement suitable controls 1.6 Minimise the environmental impacts of maintenance activities 1.7 Develop a system for reporting maintenance activities
2. Supervise maintenance of irrigation components	2.1 Develop maintenance checklists for irrigation components 2.2 Monitor component operation, identify operating faults and take appropriate action 2.3 Identify and investigate abnormal operation or frequent and recurring breakdowns and organise maintenance as required 2.4 Identify situations requiring expert advice seek and specialist assistance 2.5 Review equipment condition routinely to ensure and maintain efficient operations
3. Carry out maintenance of testing equipment	3.1 Perform preventative maintenance 3.2 Identify and report equipment wear and faults 3.3 Perform minor repairs within limits of authorisation 3.4 Replace defective parts and make adjustments 3.5 Seek expert help where difficulties are encountered 3.6 Update maintenance and calibration records
4. Supervise pest and weed control in an irrigated area	4.1 Assess evidence of pests and determine species of infestation 4.2 Locate areas of weed infestation, which may be reduced or eradicated and identify species 4.3 Select integrated control methods for pests and weeds 4.4 Schedule control methods at the optimum time that will have minimal damage to the crop 4.5 Maintain records of the severity of infestations and treatments
5. Complete records of irrigation system maintenance	5.1 Maintain records of maintenance activities 5.2 Assess the results of maintenance works against the maintenance program

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG432 Supervise irrigation system maintenance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out visual checks for blockages or signs of wear in components
- check connections and controllers
- check sprinkler output and function
- confirm operational pressures
- develop enterprise procedures for maintenance
- ensure proper operation of automatic flush valves
- inspect irrigation systems
- maintain testing equipment
- pressure testing systems
- service irrigation equipment
- test emitter output and function
- test irrigation equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of irrigation system maintenance supervision
- develop enterprise procedures for pre-season, irrigation and post-season maintenance
- drainage systems
- environmental impacts of irrigation maintenance
- equipment testing
- system components
- system inspection

- operating pressures and output
- operational and maintenance requirements
- pre and post-season maintenance covering
- pressure testing as per procedures
- pumping and distribution systems
- distribution uniformity
- visual checks for blockages or signs of wear in components
- work health and safety hazards and safe work procedures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG433 Manage irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to manage an irrigation system.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Ensure the irrigation is prepared for operation	1.1 Assess staff training needs for carrying out pre-start checks and routine servicing and arrange training for those that require it 1.2 Program or adjust the irrigation controller to meet the required

Element	Performance criteria
	schedule 1.3 Develop procedures for adjusting valves and checking filters and emitters
2. Develop and implement start-up and shutdown procedures	2.1 Develop start-up procedures 2.2 Develop shut down sequence and isolation procedures 2.3 Install safety or security lock off devices and signage 2.4 Provide instructions for flushing the system as required
3. Carry out trouble shooting for faults and blockages	3.1 Arrange access to faulty components and blockages 3.2 Remove faulty components and repair or dispose of 3.3 Select appropriate replaceable components and install
4. Measure performance of the system	4.1 Identify and record variations in pressures 4.2 Measure and record water flow rates 4.3 Identify and record variations in water flow and distribution 4.4 Measure and record pump performance parameters as necessary 4.5 Measure and record variations in pump performance parameters where relevant 4.6 Inspect distribution and delivery systems and identify and fix malfunctions in system and record actions 4.7 Identify and record factors external to the system that may cause interference
5. Review system performance status	5.1 Record system pressures and variations 5.2 Record system flow rates and variations 5.3 Calculate and record distribution uniformity and mean application rates 5.4 Determine and record watering depth 5.5 Calculate energy use and water efficiency and compare to industry benchmarks

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG433 Manage irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- access and prepare data records for both print-based and computer-based data
- apply measuring and testing techniques
- calculate pressure differentials, flow rates, crop yields, estimated water usage/actual water usage
- develop and supervise procedures for starting up, carrying out operational checks and shutting down
- identify adverse environmental impacts of irrigation activities and appropriate remedial action
- measure output and efficiency of an irrigation system
- measure, interpret and adjust flow rates and pressures
- monitor system effectiveness

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of irrigation system management
- best practices for reducing environmental impacts of irrigation
- component specifications
- environmental impacts of irrigation using water from any ground or underground source
- irrigation schedules
- pump types used in irrigation systems and their output and efficiency ratings
- soil moisture testing techniques
- irrigation technologies
- using records to review an irrigation system

- water in soils and plants
- water requirements of plants/crops consistent with sound environmental management

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG434 Manage surface irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to manage a surface irrigation system.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Ensure the surface irrigation system is prepared for operation	1.1 Assess staff training needs for carrying out pre-start checks and routine servicing and arrange training for those that require it 1.2 Program or adjust the irrigation controller to meet the required

Element	Performance criteria
	schedule 1.3 Develop procedures for adjusting valves and checking filters and emitters
2. Develop and implement start-up and shutdown procedures for a surface irrigation system	2.1 Develop start-up procedures for the system 2.2 Provide training in priming pumps and setting gates to commence irrigating 2.3 Develop shut down sequence and isolation procedures 2.4 Specify soil conditions for operation and maintain tracks to reduce compaction
3. Measure performance of a surface irrigation system	3.1 Record variations in pressures at the head works and control valves 3.2 Water flow rates are measured and recorded in accordance with enterprise policy and procedures 3.3 Measure and record water flow rates 3.4 Identify and record variations in water flow and distribution 3.5 Measure and record pump performance parameters as necessary 3.6 Measure and record variations in pump performance parameters where relevant 3.7 Inspect distribution, drainage and water measurement systems and identify and fix malfunctions in system and record actions 3.8 Identify and record factors external to the system that may cause interference
4. Review system performance status	4.1 Record system pressures and variations 4.2 Record system flow rates and variations 4.3 Calculate and record distribution uniformity and mean application rates 4.4 Determine and record watering depth 4.5 Measure quantity and quality of tail water, and amount of water reused 4.6 Calculate energy use and water efficiency and compare to industry benchmarks

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG434 Manage surface irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop procedures and providing training to staff to:
- carry out running repairs on irrigation delivery and drainage systems
- carry out shut down procedures
- check pressure at the head works and control valves
- set up pipes, system equipment and outlets
- use siphons
- develop procedures for starting up, carrying out operational checks and shutting down
- identify and record variations in water flow and distribution
- identify adverse environmental impacts of irrigation activities and take appropriate remedial action
- implement and follow workplace health and safety and environmental requirements
- measure and recording water flow rates
- provide supervision and training

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of surface irrigation management
- calculating irrigation efficiency using records to review an irrigation system
- critical measures for moisture availability:
- evapotranspiration
- field capacity
- infiltration rates

- readily available water
- water holding capacity
- wilting point
- environmental impacts of irrigation using water from any ground or underground source
- main components of surface irrigation systems
- physical soil characteristics such as infiltration rate, water holding capacity and wetted volume in the root zone
- pump types used in surface irrigation systems and their operating requirements
- pump types used in surface irrigation systems and their operation
- set up of headwater, tail water, channels and beds
- soil moisture testing techniques
- water in soils and plants
- water requirements of plants and crops consistent with sound environmental management

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG501 Audit irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to audit an irrigation system.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Collect and collate all available data	1.1 Collate data on system performance 1.2 Collate data on environmental and workplace health and safety issues 1.3 Collate data on equipment supply and usage

Element	Performance criteria
	1.4 Collate data on crop production 1.5 Collate data on water use and quality 1.6 Collate data on climatic trends 1.7 Collate data on physical and chemical properties of soil
2. Assess actual data against benchmarks, specifications and predictions	2.1 Analyse system performance and compare with system specifications and performance predictions 2.2 Analyse supply and stock use and compare with previous and estimated usage and costs 2.3 Analyse crop production and compare with previous and predicted production 2.4 Analyse water usage and quality and compare with past and predicted usage and quality 2.5 Analyse climatic information and compare with predicted trends 2.6 Analyse soil properties and compare with previous and predicted properties 2.7 Analyse production costs related to irrigation system and compare with previous and predicted costs 2.8 Analyse net profits and compare with past and predicted profits
3. Compile a report of system evaluation	3.1 Examine indicators of good performance 3.2 Examine indicators of poor performance 3.3 Examine causes of deviations from performance specifications and requirements 3.4 Prepare a report that includes discussion of results of data analysis and conclusions reached on irrigation system performance in relation to crop production and business performance
4. Recommend alterations to achieve performance improvement	4.1 Make recommendations to modify or eliminate causes of poor performance, or to enhance current performance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG501A Audit irrigation systems.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG501 Audit irrigation systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- analyse and organise data
- identify adverse environmental impacts of irrigation system activities and recommend appropriate remedial action
- recommend relevant work health and safety and environmental procedures
- solve performance problems and recommend solutions
- use computer software for irrigation auditing

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental impacts of irrigation systems using water from any ground or underground source
- evaluation procedures
- irrigation system performance indicators
- relevant workplace health and safety legislation, codes of practice and enterprise requirements
- statistical data analysis procedures or software

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG502 Design irrigation system maintenance and monitoring programs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design irrigation system maintenance and monitoring programs.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Design an irrigation system maintenance program	1.1 Specify the resources needed to perform maintenance tasks 1.2 Specify repairs, replacements and servicing requirements for all equipment and machinery

Element	Performance criteria
	1.3 Specify activities required to maintain the irrigation site, system hardware and water quality 1.4 Analyse manufacturer's operating manuals and use as guidance to specify maintenance activities, schedule and skills required 1.5 Take into account water supply authority constraints and requirements for water and maintenance when scheduling system maintenance program activities 1.6 Determine labour and work health and safety requirements for each activity and record 1.7 Ensure weed control, water storage and treatment maintenance form an integral part of the system maintenance program 1.8 Specify strategies to ensure that negative impacts of irrigation, drainage and water treatment systems are minimised, and positive impacts are maximised
2. Design a monitoring and scheduling program	2.1 Integrate procedures for monitoring and recording system hardware use and performance into the monitoring and scheduling program 2.2 Integrate procedures for scheduling, monitoring and recording water use 2.3 Include procedures for monitoring and recording operating costs 2.4 Develop contingency plans in the event of water restrictions being imposed

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG502A Design irrigation system maintenance and monitoring programs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG502 Design irrigation system maintenance and monitoring programs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- analyse and organising information
- design scheduling and recording procedures
- develop and include relevant work health and safety and environmental procedures
- identify adverse environmental impacts of irrigation, drainage and water treatment activities and taking appropriate remedial action
- identify and scheduling activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- drainage and water treatment using water from any ground or underground source
- environmental impacts of irrigation
- irrigation, drainage and water treatment maintenance activities
- maintenance and monitoring design requirements
- water quality guidelines for fresh and marine water including but not limited to ANZECC 1999
- water supply authority constraints
- work health and safety and environmental protection legislation, codes of practice and enterprise requirements for monitoring and maintenance programs

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG503 Design irrigation, drainage and water treatment systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design irrigation, draining and water treatment systems.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine design requirements	1.1 Analyse water quantity and quality needs for a particular crop or situation so that an estimation can be made for sufficiency and timeliness

Element	Performance criteria
	<p>1.2 Evaluate water transfer, recharge, reuse and harvesting systems</p> <p>1.3 Determine water collecting and storing processes that do not degrade the water quality</p> <p>1.4 Determine construction specifications that satisfy organisational and regulatory requirements</p> <p>1.5 Identify and protect environmentally sensitive areas as required by local, State and National legislation</p> <p>1.6 Investigate regional geology and geography so that a prediction can be made on the sustainability of irrigation, drainage, storage and treatment system</p> <p>1.7 Conduct a site investigation to assess type of soil, depth of soil, depth of ground water, water salinity, and structural or chemical impediments and to determine the most cost effective irrigation, drainage, treatment and storage systems</p> <p>1.8 Document design calculations and decisions</p>
2. Define pumping and power systems	<p>2.1 Identify pumps that can deliver water efficiently when needed, from the water storage at the flow and at the pressure required to operate the distribution system to the design specifications</p> <p>2.2 Select pump motor combinations that are efficient, reliable, functional, serviceable and flexible for the intended application</p> <p>2.3 Determine energy requirements and layout of electricity lines and check with local authorities</p> <p>2.4 Optimise the relationship between capital and operational costs including a comparison of energy sources</p> <p>2.5 Document performance indicators, design calculations and decisions</p> <p>2.6 Design construction specifications that define work required to make suitable pumping and power systems available</p>
3. Design an irrigation distribution system	<p>3.1 Investigate regional geology and geography so that a prediction can be made on the sustainability of irrigation</p> <p>3.2 Evaluate distribution systems and design with respect to a range of key variables</p> <p>3.3 Size pipes, valves and fittings according to design system specifications so that capital cost is balanced against operation costs over the anticipated system life</p> <p>3.4 Calculate and document flows, water levels and pressures so that they are within the acceptable tolerances for optimum performance</p> <p>3.5 Include mechanisms for controlling and adjusting pressure and confirm isolation valves to direct water to areas with different irrigation schedules</p> <p>3.6 Design distribution and monitoring systems to meet industry</p>

Element	Performance criteria
	<p>recommendations and calculate distribution system flow and velocity</p> <p>3.7 Design construction plans and specifications that define the work required to achieve the required standards of uniformity and efficiency of water application</p>
4. Design a drainage, storage and treatment system	<p>4.1 Document predictions of leaching fractions and salt movements and develop soil amelioration and drainage management plans</p> <p>4.2 Determine the need for leachate interception and dewatering system, and if required, prepare construction specifications for interception and collection, water treatment, disposal and reuse or recycle</p> <p>4.3 Design drainage, storage and treatment systems to meet industry recommendations and calculate distribution system flow and velocity</p> <p>4.4 Produce construction plans and specifications that define the work required to achieve standards of uniformity and efficiency of the drainage, storage and treatment systems</p> <p>4.5 Determine if drains and structures are capable of carrying the design water volumes and intensities</p> <p>4.6 Minimise damage from drainage, storage and treatment system issues</p> <p>4.7 Use hydrological calculations to predict volumes and rates of surface run-off</p>
5. Determine capital expense budget	<p>5.1 Document design calculations and decisions and communicate relevant information through plans, specifications and manuals</p> <p>5.2 Determine and document materials requirements from plans and specifications</p> <p>5.3 Estimate labour requirements based upon documented work schedule with reasonable allowance for variances in work schedules</p> <p>5.4 Base costing attributed to each component on quoted information from suppliers, or sound analysis of individual elements</p> <p>5.5 Confirm budget output by checking with an appropriately experienced and qualified person</p>
6. Determine operating expense budget	6.1 Determine an operating expense budget that includes all expenses applicable to the completed irrigation, drainage, storage and treatment systems

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG503A Design irrigation, drainage and water treatment systems.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG503 Design irrigation, drainage and water treatment systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect and analyse information
- compare costings
- develop budgets
- develop system specifications
- document outcomes
- identify adverse environmental impacts of irrigation, drainage, water treatment and storage activities and take appropriate remedial action
- identify system design requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- contractual development and obligations
- control and monitoring systems
- cost/benefit analysis
- design processes
- developments in irrigation, drainage, storage and treatment technology
- environmental impacts of irrigation, drainage and water treatment
- soil types and their impact on the systems
- work health and safety and environmental protection legislation and regulations, codes of practice and enterprise policies and procedures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG504 Develop an irrigation and drainage management plan

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop an irrigation and drainage management plan.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Compile property background	1.1 Identify ownership details 1.2 Compile irrigation history

Element	Performance criteria
information	1.3 Identify locality and property details 1.4 Identify agreements and easements with surrounding properties 1.5 Develop property maps to illustrate locality and property boundaries
2. Compile information on infrastructure and topography	2.1 Define significant topographical and infrastructure features 2.2 Identify opportunities and strengths of the property 2.3 Identify limitations and weaknesses of the property 2.4 Identify local planning issues that may affect the irrigation development 2.5 Develop a map overlay to illustrate topography and infrastructure
3. Compile information on natural resources	3.1 Gather soil survey information 3.2 Identify strategies to minimise and reduce soil erosion, and physical and chemical soil deterioration 3.3 Identify water source availability and quality 3.4 Identify ground water depth and salinity issues 3.5 Define climatic characteristics 3.6 Develop a map overlay to illustrate natural resource features
4. Compile information on enterprise cropping and planting	4.1 Define the suitability of soils and water quality for crops and plants 4.2 Identify any special irrigation requirements of crops and plants 4.3 Develop monthly and annual water budgets for each crop and plant program 4.4 Identify current yields and compare with benchmark crop yields 4.5 Establish targets with consideration for any factors which would limit optimum production 4.6 Define intended crop rotations 4.7 Develop a map overlay to illustrate crop and plant detail
5. Compile information on existing irrigation and drainage system where used	5.1 Evaluate current system performance 5.2 Compare current system performance to benchmark performance parameters 5.3 Develop scheduling procedures 5.4 Define drainage management performance including environmental authority compliance issues 5.5 Identify areas for improvement in system management and structure 5.6 Develop a map overlay to illustrate irrigation system layout
6. Develop an irrigation and drainage management plan with	6.1 Summarise performance requirements for distribution, treatment and drainage systems

Element	Performance criteria
specifications for new or up-graded irrigation and drainage system	6.2 List new or replacement components 6.3 Develop a development timetable 6.4 Define proposed scheduling system 6.5 Define performance monitoring procedures and work health and safety requirements 6.6 Define drainage management processes 6.7 Develop a map overlay to illustrate proposed irrigation and drainage development

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG504A Develop an irrigation and drainage management plan.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG504 Develop an irrigation and drainage management plan

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- compile and analyse complex information
- develop and implement relevant work health and safety and environmental procedures
- develop plans and reports
- identify adverse environmental impacts of irrigation system activities and recommend appropriate remedial action
- interpret statistical data and measurements
- use a range of irrigation and information management software

Knowledge Evidence

The candidate must demonstrate knowledge of:

- computerised irrigation systems
- enterprise policies and procedures
- environmental impacts of irrigation systems using water from any ground or underground source
- irrigation system options
- measuring and monitoring procedures
- methods and techniques of irrigation
- readily available water
- soil, plant and water relationships
- water table and salinity

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCIRG505 Establish and maintain an irrigation-related environmental protection program

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish and maintain an irrigation-related environmental protection program.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish and maintain an irrigation and drainage	1.1 Develop an irrigation and drainage environmental plan in consultation with property owner or manager 1.2 Define environmental responsibilities for the property and include

Element	Performance criteria
environmental protection program	in the duties of all personnel 1.3 Include financial and human resources to implement the environmental plan in a timely and consistent manner 1.4 Establish and maintain environmental records
2. Establish and maintain arrangements to ensure the involvement of all personnel in the environmental program	2.1 Develop procedures and processes that allow and encourage all personnel at all levels to have input into environmental issues 2.2 Address issues raised through involvement and consultation with personnel
3. Establish and maintain risk management procedures to protect the environment from irrigation practices and related activities	3.1 Establish and maintain procedures for identifying and assessing existing and potential risks to the environment arising from irrigation practices and related activities 3.2 Design work processes and procedures to reduce or eliminate risks and hazards to the environment 3.3 Establish and maintain organisational and administrative systems to control risks to the environment arising from irrigation practices and related activities 3.4 Establish and maintain procedures to monitor risks to the environment and compliance with relevant legislation and regulations
4. Establish and maintain procedures for responding to environmental pollution events	4.1 Identify potential environmental pollution events 4.2 Develop procedures to control the level of risk associated with pollution events in consultation with relevant environmental protection agencies and local government authorities 4.3 Provide appropriate information and training to personnel to ensure prompt implementation of response procedures
5. Establish and maintain an environmental protection induction and training program	5.1 Develop an environmental protection induction and training program and incorporate into the organisational personnel training program to ensure compliance with relevant legislation and regulations 5.2 Maintain records of environmental protection training

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG505A Establish and maintain an irrigation-related environmental protection program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG505 Establish and maintain an irrigation-related environmental protection program

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply and comply with environmental requirements
- audit data bases
- develop and implement relevant work health and safety and environmental procedures
- develop policies and procedures
- identify adverse environmental impacts of irrigation activities and take appropriate remedial action
- use technology to draft documents, develop environmental information and audit data bases

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental impacts of irrigation, using water from any ground or underground source
- environmental planning for irrigation and drainage
- external factors that may affect the system
- relevant work health and safety and environmental protection legislation, codes of practice and enterprise procedures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW301 Supervise park visitor activities

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to give information and advice, and supervise public access and activities within a park or reserve.

All work is done in accordance with enterprise procedures, legislative and public health and safety requirements.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Provide information on opening and closing	1.1 Operate security systems 1.2 Inform public of opening and closing times

Element	Performance criteria
times	
2. Advise public on park or reserve access and activities	2.1 Communicate with public in a courteous, confident and effective manner 2.2 Inform public of responsibilities and safety requirements when using park facilities 2.3 Check park access and facilities are suitable for access 2.4 Inform public of changes to access to park facilities when these have been affected by severe weather or other event
3. Monitor visitor activities	3.1 Monitor visitor activities to ensure there is no risk of environmental degradation or destruction or to biosecurity 3.2 Monitor visitor activities to ensure the safety of staff and the general public 3.3 Act upon non-compliance with site access conditions 3.4 Report and respond to incidents

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW301A Supervise park visitor activities.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW301 Supervise park visitor activities

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- advise public on park or reserve access and activities
- provide information on safety requirements
- monitor visitor activities to ensure compliance with park or reserve conditions of entry, safety and environmental requirements
- act on non-compliance activities promptly
- report incidents according to organisation procedures and legislative requirements
- use standard industry terminology
- follow work health and safety policies and procedures and monitor visitor activities to ensure safety of general public

Knowledge Evidence

The candidate must demonstrate knowledge of:

- limits to personal and legal authority to act on non-compliance with site access conditions
- enterprise procedures, work health and safety and legislative requirements
- enterprise security systems and communication equipment
- conditions for visitors entering park

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW303 Construct access tracks

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to construct access tracks and clear vegetation on rural land.

This unit applies to workers in land management who are required to implement erosion control principles and apply specialised earthmoving techniques to fine tolerances. Work is often carried out in varied conditions and landscapes that require operators to develop skills that are unique to this sector.

All work is undertaken in accordance with relevant national, State, and local legislation and/or regulations.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

Licenses for vehicles and machinery may be required for this unit. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for construction of access track	1.1 Confirm construction details and work sequence 1.2 Confirm compliance with relevant regulatory planning and environmental legislation 1.3 Confirm equipment is ready for work 1.4 Match equipment and attachments to tasks and terrain 1.5 Locate survey pegs and site indicators on work site 1.6 Follow organisational work health and safety procedures 1.7 Adhere to site environmental concerns 1.8 Apply principles of erosion and sediment control to the construction of track 1.9 Determine control points, required grades and water crossing points and structures from field observations and any available additional information 1.10 Obtain permits or licences required for the construction 1.11 Schedule and coordinate people, materials and equipment
2. Construct access track	2.1 Use earthworks methods and patterns for specific machines during construction according to job requirements 2.2 Monitor and maintain optimum machine loads to suit prevailing conditions 2.3 Use safe machine operating techniques and procedures to match terrain, site conditions and other operators 2.4 Complete excavation, transport, dumping and compaction of material in line with job sequence and endorsed industry practices 2.5 Clear vegetation according to industry best practice 2.6 Liaise with neighbouring landholders, local authorities and interest groups during the construction activity 2.7 Complete documentation required by organisation 2.8 Communicate with staff, clients and contractors during construction 2.9 Ensure work methods meet environmental sustainability, biosecurity and work health and safety requirements
3. Apply final finish to track	3.1 Use endorsed industry methods to surface track to achieve job specifications 3.2 Retain site features and vegetation in line with work plan 3.3 Clear site and remove debris in line with contract requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW303A Construct access tracks.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW303 Construct access tracks

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select and prepare equipment
- determine control points, required grades and water crossing points and structures from field observations
- confirm that plans comply with legislative requirements by checking with a supervisor or authorised person
- construct tracks to organisational standards
- excavate, transport, dump and compact road material according to job sequence and endorsed industry practices
- finish track surface
- clean worksite to organisational standards
- operate machinery according to manufacturer and safe operating procedures
- apply work health and safety practices in the context of own work
- apply biosecurity measures in the context of own work
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- erosion and sediment control standards, principles and issues that apply to the construction of the access track, including:
 - soils and soil formation
 - earthmoving principles
 - total catchment issues
 - how to manage peak water flows

- subsurface and surface drainage principles and systems
- key concepts of the relevant wildlife, environmental, planning, ground water legislation
- biosecurity in the context of own work
- permits and licenses required for the construction of access tracks

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW304 Carry out inspection of designated area

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out an inspection of a designated area.

All work is undertaken in accordance with statutory and local authority requirements.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

Vehicle licenses apply to this unit. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Define area and target of inspection	1.1 Confirm location and size of area to be inspected 1.2 Identify features of natural environment in target area 1.3 Set frequency of inspection according to management strategy

Element	Performance criteria
	1.4 Determine targets of inspection from management strategy 1.5 Confirm characteristics and favoured conditions for targets with management
2. Carry out risk assessment and minimisation	2.1 Check time and duration of inspection and notify relevant personnel 2.2 Identify risks to the environment associated with the inspection 2.3 Take precautions to minimise environmental risks associated with the inspection 2.4 Identify safety hazards associated with the inspection 2.5 Follow work health and safety policies and procedures to minimise safety risks
3. Prepare for inspection	3.1 Identify vehicles, equipment and materials required for the inspection 3.2 Check vehicles, equipment and materials for serviceability
4. Carry out inspection	4.1 Operate vehicles and equipment 4.2 Carry out inspection within the specified area 4.3 Identify and record target occurrence as required by the management strategy 4.4 Follow statutory requirements and enterprise protocols regarding entering private property 4.5 Follow regulatory requirements and enterprise procedures for dealing with landholders or their employees 4.6 Implement precautions to minimise risks to the environment and self 4.7 Note and report incursions of non-targeted threats
5. Establish the impact of the specified target	5.1 Collect information on potential impacts from stakeholders 5.2 Collect and analyse data on environmental hazards resulting from target presence
6. Prepare a report	6.1 Document collated data, inspection records and analysis of findings with appropriate recommendations 6.2 Report targets as required by legislation or regulation 6.3 Submit report to supervisor or other authority 6.4 Ensure samples submitted comply with legislative requirements or regulations 6.5 Clean and store equipment and materials according to industry standards

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW304A Carry out inspection of designated area.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW304 Carry out inspection of designated area

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- define the scope and criteria on which to base inspection
- define the hazards and risks to work health and safety and the environment associated with the inspection
- conduct inspections, complying with statutory requirements and enterprise protocols for entry to private property
- conduct inspections in a manner that minimises environmental impacts
- operate equipment and vehicles according to organisation procedures
- establish environmental impacts caused by the presence of the target
- document the inspection findings and recommend follow up actions
- apply work health and safety practices in the context of own work
- take precautions to minimise environmental risks during inspection

Knowledge Evidence

The candidate must demonstrate knowledge of:

- risk management processes
- characteristics of inspection targets
- inspection procedures and techniques
- monitoring techniques
- reporting protocols
- relevant legislative and regulatory requirements including environmental protection legislation

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW305 Perform diving for scientific purposes

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to dive to support scientific research, monitoring and inspection roles associated with places or areas of significance.

All work is undertaken to legislative, manufacturer, enterprise and code of practice requirements.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

This unit requires compliance with the current Australian Standard for Occupational Diving Operations: Scientific Diving.

Dive certificates and licensing apply for this unit and specific determination should be sought from the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Plan diving operations	1.1 Determine dive objectives 1.2 Assess number and type of dives to develop a dive program that will meet objectives 1.3 Determine equipment and personnel required for dive operations 1.4 Consult appropriate people about the dive objectives and proposed program
2. Prepare for diving operations	2.1 Obtain equipment and personnel required for dive operations 2.2 Obtain appropriate notification and consents for dive plans 2.3 Check equipment condition 2.4 Send faulty equipment for repair or replacement 2.5 Assess requirements for and source consumables 2.6 Check personnel for competence and possession of a current medical clearance 2.7 Develop safety and emergency procedures for the dive program 2.8 Conduct a safety hazard analysis and risk assessment
3. Conduct dive	3.1 Establish communications procedures for all dives 3.2 Perform pre-dive checks 3.3 Complete assessment of environmental factors before entering the water 3.4 Conduct dives within the parameters of the special dive plan, including entry, descent, working on dive objective and exit 3.5 Amend dive procedures within enterprise requirements, codes of practice and personal authority in light of dive conditions, and any changes to dive objectives 3.6 Monitor dive conditions and suspend or cancel dives where safety or equipment operation considerations warrant 3.7 Suspend dives where personnel have completed allowed number of dives according to no-decompression limit tables 3.8 Remove equipment from site at completion of dives 3.9 Log dives Carry out dives according to Australian Standard
4. Debrief diving team	4.1 Review procedures and outcomes after dive 4.2 Amend procedures and dive plans 4.3 Record dive debriefing
5. Check and store equipment	5.1 Check dive equipment for condition and operation 5.2 Send faulty equipment for repair or replacement 5.3 Test and store equipment

Element	Performance criteria
	5.4 Record equipment use
6. Review diving program	6.1 Review dive plan in light of debriefing, outcomes achieved, risk assessments and safety analysis and future requirements 6.2 Record and report review conclusions
7. Respond to diving incidents	7.1 Monitor dive operations to identify potential or actual incidents 7.2 Suspend or cancel dive operations where potential or actual maladies have been identified 7.3 Ensure a rescue plan has been developed for all dives and that the plan has been communicated to the dive team as part of the pre-dive briefing 7.4 Apply diver first aid to injured or distressed personnel 7.5 Notify emergency authorities where assistance is required 7.6 Review procedures and dive plan in light of risks identified and potential or actual malady 7.7 Record all incidents on the enterprise register

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW305A Perform diving for scientific purposes.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW305 Perform diving for scientific purposes

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan to carry out a dive
- prepare to dive
- carry out pre-dive checks and safety risk assessments
- monitor dive conditions, respond to incidents and amend dive procedures if necessary
- debrief dive team
- store diving equipment
- dive safely and according to organisational policies and procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- interpretation of no-decompression limit tables to determine maximum length and number of dives allowed
- the physics of diving
- dive equipment
- safety risks associated with scientific dives
- dive planning
- Australian Standards for occupational diving
- rescue procedures
- oxygen administration procedures
- agency standing orders for notification
- emergency service procedures
- dive communication procedures and equipment

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW306 Undertake sampling and testing of water

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and carry out sampling and testing of water quality as part of a monitoring program.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan for sampling and testing field work	1.1 Confirm monitoring schedule 1.2 Identify water quality and environmental parameters 1.3 Identify samples to be collected 1.4 Determine and arrange equipment requirements for water sampling and testing 1.5 Assess range of likely operating conditions, hazards and difficult

Element	Performance criteria
	or sensitive environments for impact on sampling and testing
2. Prepare equipment and resources	2.1 Obtain equipment required for sampling and testing 2.2 Check and calibrate equipment for availability and serviceability 2.3 Verify correct and accurate performance of equipment 2.4 Repair and maintain field-based equipment and instruments 2.5 Collect data or record sheets for use 2.6 Install and protect equipment 2.7 Brief staff undertaking sampling and testing on responsibilities
3. Carry out sampling and testing of water	3.1 Undertake tests in accordance with monitoring plan 3.2 Take and test samples in accordance with monitoring standards 3.3 Prepare, package and send samples to laboratory for external analysis 3.4 Make specific and general observations including information on relevant ambient and antecedent environmental conditions 3.5 Inform appropriate person of obvious water quality or environmental issues immediately
4. Complete water sampling and testing activities	4.1 Clean, repair and store equipment and clothing 4.2 Repair damaged or malfunctioning equipment on site or send to manufacturer or specialist 4.3 Record test results and observations on data sheets 4.4 Report changes in field conditions and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW306A Undertake sampling and testing of water.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW306 Undertake sampling and testing of water

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan a water sampling program under direction according to regulatory and organisation requirements
- test and calibrate equipment according to regulatory and organisation requirements
- sample and test water according to regulatory and organisation requirements
- record results on data sheets
- record and report water testing results to organisational standards
- report obvious water quality issues observed during sampling to supervisor or manager immediately
- apply work health and safety practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- water monitoring schedules and guidelines
- standards for water quality
- sampling and testing methods

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW401 Process applications for changes in land use

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to process applications from landowners to make changes in land use.

This unit applies to those whose job role includes assessing the impact of changes in land use, and processing applications.

These individuals have limited responsibility for others and apply judgement in known and sometimes changing contexts.

All work is carried out according to agency guidelines and best practice procedures and based on program guidelines.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks And Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Establish client requirements	1.1 Discuss and confirm the proposed changes with the landholder 1.2 Review the catchment characteristics in view of the proposed land use 1.3 Explain current impacting legislation and policies to the landholder 1.4 Discuss possible strategies with the landholder and confirm the best option
2. Determine scope of the request	2.1 Determine profile of site from survey and aerial photographs 2.2 Undertake initial inspection checks against legislative or agency procedures 2.3 Check native vegetation types against maps and local guidelines 2.4 Check threats to local species against local resources 2.5 Check catchment characteristics of the land 2.6 Determine the impact on soil and water of proposed land use and industry principles 2.7 Note cultural heritage issues according to agency guidelines 2.8 Consider the application against eligibility criteria, and relevant policies and legislation
3. Present finding	3.1 Provide applicant with technical data following program guidelines 3.2 Report findings relating to the formal application 3.3 Inform applicant of specific requirements relating to submitting a formal application 3.4 Communicate and confirm assessment process 3.5 Communicate potential risks associated with proceeding with the application

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW401A Process applications for changes in land use.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW401 Process applications for changes in land use

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- establish client intentions and requirements
- communicate the process, policies and relevant legislation to the applicant
- discuss the scope and application of the submission in light of preliminary discussion
- present findings and feedback to the applicant
- provide further information and explain the appeal process if application is rejected
- explain provisions within Federal and State legislation or relevant land use to landholder
- interpret aerial photographs, maps and geographical information systems to identify particular landmarks and areas
- undertake investigations to determine scope and impact of request

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevance and impact of Federal and State legislation and regulations related to land use
- catchment characteristics of land in question
- vegetation types native to area
- signs and landmarks in aerial photographs, maps and geographic information system (GIS)
- agency policies and procedures
- formats for presenting information to clients
- process for applying for changes in land use and process for appeals if application is rejected

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW402 Implement land and sea management practices

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement sustainable land and sea management practices.

This unit applies to those whose job role includes implementing sustainable Indigenous and non-Indigenous land and sea management practices required for a given area according to land and sea management plans and strategies, Community guidelines and cultural protocols.

This unit applies to individuals who have limited responsibility for others and apply judgement in known or changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine appropriate Indigenous land and	1.1 Observe cultural protocols in discussing and evaluating

Element	Performance criteria
sea management practices	Indigenous land and sea management practices 1.2 Review land and sea management plans and priorities 1.3 Assess the most appropriate Indigenous practices for a specified area 1.4 Make comparisons with non-Indigenous land and sea management practices 1.5 Define and quantify technology, materials and resources for Indigenous management practices for a specific area or practice 1.6 Identify appropriate persons to provide advice and information on Indigenous land and sea management practices 1.7 Determine cultural protocols and customs in relation to disclosure of information on Indigenous land and sea management practices
2. Determine appropriate non-Indigenous land and sea management practices	2.1 Identify legislative, enterprise and best practice parameters governing non-Indigenous land and sea management practices 2.2 Review land and sea management plans and priorities 2.3 Determine the most appropriate non-Indigenous practices for a specified area 2.4 Make comparisons with Indigenous land and sea management practices 2.5 Define technology, materials and resources for non-Indigenous land and sea management practices 2.6 Identify and access relevant information sources on non-Indigenous land and sea management practices
3. Develop approach to implementation of land and sea management practices	3.1 Develop options based on comparison of Indigenous and non-Indigenous land and sea management practices 3.2 Consult appropriate persons about available options 3.3 Prepare staging strategy for preferred option with realistic costs 3.4 Consult and involve owners and stakeholders of specific area in setting priorities for management work and practices
4. Undertake land and sea management practice	4.1 Undertake land and sea management practices in compliance with agreed approach 4.2 Undertake work according to enterprise guidelines, industry best practice and community expectations and work health and safety policies and procedures 4.3 Respect cultural customs and protocols throughout performance of work 4.4 Ensure practices are carried out by appropriately authorised persons

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW402A Implement land and sea management practices.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW402 Implement land and sea management practices

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- consult with authorised Community members to determine appropriate Indigenous land and sea management practices using accepted protocols
- determine appropriate non-Indigenous land and sea management practices
- develop and discuss preferred options to implement land and sea management practices with Indigenous groups and other stakeholders
- undertake land and sea management practices in compliance with agreed approach and cultural customs and protocols
- apply work health and safety practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- cultural protocols of local Aboriginal Communities that relate to land and sea management activities
- Indigenous land and sea management practices
- non-Indigenous land and sea management practices
- technology used for environmental management
- implementation strategies for land and sea management
- work health and safety, environmental legislation and codes of practice

Assessment Conditions

Assessor must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW403 Inspect and monitor cultural places

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to inspect and monitor cultural places.

This unit applies to those whose job role includes inspecting and monitoring the fabric and setting of heritage or culturally significant places to identify non-conformities with conservation and management plans. A high level of cultural awareness and the need to observe cultural protocols are important in parts of the process.

This unit applies to individuals who undertake a range of routine and non-routine activities in known and changing contexts and provide solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare for inspection	1.1 Determine significance of place from conservation and management plans 1.2 Determine specific facilities and equipment required for inspection according to operational request 1.3 Obtain appropriate checklists relating to condition of cultural place and surrounds to suit the application
2. Carry out comprehensive inspection	2.1 Follow work health and safety policies and procedures for carrying out inspections 2.2 Inspect condition of cultural place for deterioration and damage 2.3 Record non-conformity with conservation and management plans 2.4 Evaluate deterioration and damage to the cultural place to determine the short and long-term impact on the significance 2.5 Determine threats to place 2.6 Check records for accuracy 2.7 Determine and schedule maintenance works for the cultural place 2.8 Identify and detail potential safety risks and hazards
3. Submit report and recommendations	3.1 Address situations requiring urgent action in accordance with conservation management plan 3.2 Provide draft reports to stakeholders 3.3 Prepare and submit report to management 3.4 Review frequency and scope of inspection requirements in management systems 3.5 Ensure recommendations for future action are consistent with conservation management plan and industry best practice and comply with legislative requirements and international environmental standards, guidelines and charters 3.6 Submit collected data and information for inclusion on information management system
4. Monitor surroundings	4.1 Monitor condition of surrounds and setting of the place or area for deterioration, damage and biological or geophysical changes and potential biosecurity risks 4.2 Evaluate deterioration and damage to determine short and long-term impact on the significance of the place 4.3 Plan restoration or modification of biological aspects of the setting including Indigenous and exotic species 4.4 Plan required restoration or modification of geophysical aspects of the setting and surrounds 4.5 Integrate maintenance, restoration and modification of place, setting and surrounds
5. Monitor stakeholder	5.1 Consult stakeholders to determine their views on the significance

Element	Performance criteria
views on significance	<p>and maintenance of the place and area</p> <p>5.2 Consult visitors to obtain their views on the place and area</p> <p>5.3 Assess changes in views for impact on cultural significance, approach to maintenance, restoration and modification, and current and proposed uses of the place or area</p> <p>5.4 Report assessment of changed views to enterprise and Burra Charter processes or Indigenous places guidelines</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW403A Inspect and monitor cultural places.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW403 Inspect and monitor cultural places

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- establish the cultural value and significance of the place
- prepare or source checklists for inspection
- inspect the place to establish a schedule of maintenance and monitor site management
- prepare reports to enterprise standards
- submit report and recommendations based on requirements of contract including a review of existing management systems
- monitor surroundings to establish restoration, reclamation, modification and protection required in the immediate area
- conduct safety hazard analysis and risk assessments according to organisational policies and procedures
- monitor stakeholder views for impact on cultural significance, approach to maintenance, restoration and modification, and current and proposed uses of the place or area
- apply work health and safety practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant aspects of Australian Heritage Commission legislation and requirements, State or Territory Heritage requirements and World Heritage requirements
- relevant environmental standards and best practice guidelines
- application of national and International Charters of the International Council on Monuments and Sites (ICOMOS), including the Burra Charter to monitoring of cultural places
- environmental legislation and codes of practice

- processes of environmental and artefact deterioration and damage
- maintenance, restoration and modifications that could be applied to place or area
- threats to place or area, including visitor impacts

Assessment Conditions

Assessment must comply with Community protocols and guidelines and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW404 Produce maps for land management purposes

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to access geographical information and incorporate it onto maps for use in land management.

This unit applies to those whose job role includes preparing maps by hand or by using geographical information systems (GIS) for land management purposes.

This unit applies to individuals who have limited responsibilities for others in known and changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Obtain information for a specific land	1.1 Define information required from data sets 1.2 Collect and present information from stakeholders on land

Element	Performance criteria
management purpose	<p>management and production systems consistent with the local area management strategy</p> <p>1.3 Collect information to include temporal and spatial data</p> <p>1.4 Review information for relevance and accuracy</p>
2. Assess data availability	<p>2.1 Ascertain availability of required data sets from internal and external sources</p> <p>2.2 Confirm ownership of data and determine access and pricing</p> <p>2.3 Obtain data in accordance with industry standards, statutory requirements and enterprise policy</p> <p>2.4 Develop procedures to capture data</p>
3. Assess data quality	<p>3.1 Assess data for integrity and to determine suitability for task</p> <p>3.2 Investigate and resolve disparities between data sets</p>
4. Format and present data	<p>4.1 Identify compatible formats for data</p> <p>4.2 Assemble relevant data elements</p> <p>4.3 Select data formats to meet user's requirements</p> <p>4.4 Present information using suitable media</p> <p>4.5 Present information in accordance with appropriate enterprise requirements and Australian standards</p>
5. Incorporate data onto maps	<p>5.1 Use range of computer applications to transfer information from various data sources onto maps</p> <p>5.2 Produce draft maps showing spatial and temporal data consistent with development and implementation of the land management strategy</p> <p>5.3 Review and edit maps to confirm accuracy and develop a map key to identify natural resource features, structures and land uses</p> <p>5.4 Analyse maps for data to assist in development or implementation of land management plan</p>
6. Review customer satisfaction	<p>6.1 Seek feedback from users regarding satisfaction with information and presentation</p> <p>6.2 Resolve any areas of dissatisfaction</p> <p>6.3 Analyse and use customer feedback as a quality improvement tool</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW404A Produce maps for land management purposes.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW404 Produce maps for land management purposes

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- source data sets that provide the required information
- validate the data for currency and compare to ground observations
- present data to workplace requirements
- incorporate data onto a map
- use drafting and editing processes to ensure accuracy of data and maps and to ensure reports and maps meet organisational standards
- provide a map key and any supporting information required
- evaluate maps for suitability for purpose and value in making land management decisions

Knowledge Evidence

The candidate must demonstrate knowledge of:

- land management processes relevant to map being prepared
- mapping principles and conventions including layout, legends, scale, media, printing and presentation styles
- use of software and hardware such as GIS, computer-aided design (CAD), desktop publishing, desktop mapping, multimedia, graphic animation, plotters and printers

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW405 Monitor biodiversity

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor biodiversity in a given area, and record and analyse findings.

This unit applies to natural area managers and those seeking information on natural systems or areas. These individuals take limited responsibility in known or changing contexts within established guidelines.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select monitoring techniques	1.1 Select monitoring operations to obtain required data described in monitoring plan 1.2 Assess range of likely operating conditions, hazards and difficult or sensitive environments for impact on monitoring

Element	Performance criteria
	1.3 Consider alternative land, sea and air operations to collect data 1.4 Trial operations to test monitoring scheme for reliability, timeline and safety
2. Prepare equipment and resources	2.1 Obtain appropriate certificates, licenses and authorisations 2.2 Source equipment required for monitoring 2.3 Transport equipment and personnel to monitoring sites 2.4 Install and protect equipment from weather conditions 2.5 Test equipment and monitoring procedures in field conditions 2.6 Ensure equipment does not have lasting detrimental impacts on the environment 2.7 Develop systems to capture, maintain and analyse data
3. Monitor biodiversity	3.1 Make observations according to monitoring plan 3.2 Record data to monitoring plan and database requirements 3.3 Record location and times of observations
4. Analyse data	4.1 Determine presence of ecosystems and flora, fauna and microorganism populations within specified area 4.2 Identify threats to specified area 4.3 Examine records of monitored data for consistency and accuracy within requirements of the monitoring plan 4.4 Determine whether the observations and measurements are addressing factors and issues consistent with the monitoring plan 4.5 Adjust monitoring techniques to overcome any deficiency or report need for adjustment to monitoring plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW405A Monitor biodiversity.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW405 Monitor biodiversity

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- use monitoring techniques suitable for the environment and species
- install and use monitoring equipment
- develop systems to capture, maintain and analyse data
- make observations and record data on species diversity and abundance
- analyse data
- ensure the monitoring process is correctly targeted and implemented

Knowledge Evidence

The candidate must demonstrate knowledge of:

- ecosystems
- plant and animal classification
- monitoring systems for flora, fauna and microorganism populations
- accepted scientific processes for monitoring biodiversity
- set up and use of monitoring equipment
- data recording and analysis techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW501 Develop a management plan for a designated area

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a management plan for a designated area.

This unit applies to land managers who are responsible for the development of management strategies and the documentation of management plans with a defined emphasis on flora or fauna and covering the range of biodiversity present in a designated area.

These individuals apply judgement and have defined responsibilities in known and changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Define the need for a	1.1 Identify management plan objectives for the designated area

Element	Performance criteria
management plan	1.2 Consult with client to achieve agreement on brief 1.3 Identify planning team, including specialists and consultants
2. Undertake preliminary planning activities	2.1 Identify major stakeholders 2.2 Ascertain availability of specialists to assist in management planning work and prepare contracts 2.3 Establish timelines for development of the management plan and reporting arrangements to client 2.4 Identify resources required for the development of management strategies
3. Prepare a site description	3.1 Identify and map landscape values of the area 3.2 Identify and map physical features and characteristics of the area 3.3 Research land uses and determine and record their effects on the designated area 3.4 Assess and document physical condition of site including civil design concepts, where relevant 3.5 Document biological characteristics of the site including the existence of native and pest fauna and flora populations, habitat requirements for fauna, seasonal and nutritional influences on lifecycles
4. Analyse site information and description	4.1 Evaluate information in terms of core principles and objectives 4.2 Produce site plans, technical reports and maps 4.3 Determine priorities and key conservation issues 4.4 Prepare longitudinal projections of continuing impacts 4.5 Assess land capability 4.6 Identify and document opportunities and constraints to meeting planning objectives and goals 4.7 Present to stakeholders and incorporate feedback into planning documentation
5. Identify management strategies	5.1 Identify management strategies that address defined objectives 5.2 Design management strategies to alleviate existing impacts, pests, and diseases or to target management actions 5.3 Cost and compare management strategies to existing budgets and available resources 5.4 Plan staging of work to prioritise outcomes and management resource allocation 5.5 Consult with stakeholders and incorporate feedback into planning documentation
6. Prepare the management plan	6.1 Document site information and management strategies into a draft management plan for consultation

Element	Performance criteria
	6.2 Consult with stakeholders and clients 6.3 Make changes to the draft plan and prepare and present a final plan to client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW501A Develop a management plan for a designated area.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW501 Develop a management plan for a designated area

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- discuss management plan objectives, deliverables and timeline with client
- prepare a site plan detailing landscape values, physical features and characteristics, past and present land uses, physical condition and biological characteristics
- assess land capability and identify conservation issues on and surrounding the site
- analyse site information and description to assess feasibility of management objectives
- develop and cost recommended actions in line with client requirements
- present a draft management plan to client for discussion
- consult with stakeholders and incorporate feedback into the final management plan
- prepare documentation to enterprise standards and to meet client needs

Knowledge Evidence

The candidate must demonstrate knowledge of:

- civil design concepts
- management planning principles and issues
- environmental assessment, survey and analysis techniques and practical application to a range of habitats and landscapes
- native fauna or flora physiology, habitat requirements, and seasonal and nutritional influences on life cycle
- wildlife habitats associated with the designated area and local geographic region
- pest plant and animal and disease identification, physiology, control techniques, and equipment, pesticides and habitat requirements
- land management strategies including:
- pest management or control techniques

- techniques and strategies for use in the management, rehabilitation and enterprise use of native Australian habitats, species and landscapes
- Indigenous flora regeneration and revegetation techniques, equipment and methods of application in relation to a range of landscape characteristics
- management and rehabilitation techniques for the wildlife and habitat relevant to the designated area
- soil, plant and water testing processes and procedures, interpretation and application of results

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW503 Assess applications for legislative compliance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assess legislative compliance of formal applications for changes in land use, and make recommendations.

All work follows legislative requirements and is completed in line with program guidelines and procedures according to enterprise guidelines and industry best practice.

This unit applies to individuals who apply judgement in assessing applications for legislative compliance and have defined responsibilities in known or changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for assessment	1.1 Review and confirm existing data concerning suitability of application for changes in land use

Element	Performance criteria
	1.2 Communicate intention to process formal application 1.3 Complete title search 1.4 Communicate issues about collection of evidence aligning with technical guidelines 1.5 Establish timing of inspection and data collection with client
2. Collect site evidence	2.1 Check accuracy of site details using site maps, aerial photographs and geographic information systems 2.2 Collect relevant data 2.3 Check threats to species diversity 2.4 Assess soil and water impact consistent with proposed land use 2.5 Investigate and record cultural heritage issues
3. Compile final report	3.1 Check detail and accuracy of site data against assessment criteria 3.2 Report recommendations in accordance with legislative and agency requirements 3.3 Present final report and supporting documentation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW503A Assess applications for legislative compliance.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW503 Assess applications for legislative compliance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- review existing data on land use changes according to program guidelines
- undertake title searches
- schedule physical inspection with land holder
- collect evidence from the site on potential impacts on species diversity and soil and water quality according to legislative requirements and enterprise procedures
- record any evidence of issues with cultural values of the site
- interpret aerial photographs, maps and geographic information systems
- compile reports to agency standards and make recommendations supported by evidence

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant Federal and State legislation and regulations that apply to vegetation clearance and land use
- agency policies and procedures
- formats for reporting
- assessment approaches for area of notification

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW505 Implement natural and cultural resource management plans

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement natural and cultural resource management plans.

This unit applies to individuals whose job role includes implementing natural and cultural resource management plans, and demonstrate judgement and defined responsibilities in known or changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine priorities within the conservation or resource	1.1 Identify priorities in plan that conserve places of high significance, address threats to significance, manage risks, and generate revenue from the resources

Element	Performance criteria
management plan	1.2 Express priorities in the plan in terms of new or continuing investigations into natural or cultural significance, new procedures, and new or continuing development or maintenance projects 1.3 Develop procedures to address conservation priorities within the context of legislation, park or reserve procedures and Codes of Practice
2. Develop projects to priorities	2.1 Determine development and maintenance projects according to Burra Charter and Australian National Heritage Charter guidelines 2.2 Identify outcomes and key project steps 2.3 Identify project steps and funding requirements
3. Obtain and manage funds	3.1 Develop budget and estimate funds to develop operations and projects 3.2 Make applications for funds 3.3 Manage budget
4. Brief staff on plan, priorities and project	4.1 Brief staff on the plan objectives, priorities and planned actions 4.2 Train staff in new procedures developed to address plan objectives, including work health and safety, sustainability and biosecurity policies and procedures 4.3 Develop project implementation details

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW505A Implement natural and cultural resource management plans.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW505 Implement natural and cultural resource management plans

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine priorities based on areas of high significance, the level of risk to sensitive areas, and the potential for revenue generation
- identify projects from the agreed priorities
- develop budgets for projects and apply for funding
- brief and train staff to carry out tasks and projects safely and in accordance with organisation policies, procedures and the management plan
- apply work health and safety policies and procedures to plans and strategies
- apply biosecurity measures to plans and strategies
- apply appropriate sustainability practices to plans and strategies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- park or reserve management approaches
- human resource and financial management
- works and project management practices
- policies applying across all levels of government and within the specific region, including those under catchment plans
- Australian Natural Heritage Charter and the Burra Charter and the interpretation of the charters
- good planning practice and enterprise planning procedures and timelines

Assessment Conditions

Any assessment undertaken on Aboriginal Country must comply with Community protocols and guidelines and be supported by Elders and Custodians of Country.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLPW601 Coordinate the preparation of a regional resource management plan

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to engage stakeholders and coordinate the development of regional natural resource management plans. This unit applies to individuals who coordinate the preparation of a regional resource management plan at a strategic level with the capacity to devolve responsibilities and tasks to specialist planners and others.

All work is undertaken according to legislative, program, enterprise and contract requirements.

This unit applies to individuals who demonstrate judgement and defined responsibility in known and changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Lands, Parks and Wildlife (LPW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Review existing information	1.1 Review scoping or prior resource management plans to determine starting point for planning process 1.2 Identify sources of additional information for use 1.3 Examine natural resource management issues previously identified to determine current and future impacts 1.4 Identify scope and potential solutions from documentation for use in planning process
2. Form groups to support process	2.1 Approach key stakeholder groups to obtain views on consultative structures and processes 2.2 Form groups to obtain stakeholder views and assistance on plan development 2.3 Develop structure of groups that allow diversity and promote involvement, ownership and co-operation
3. Plan consultations	3.1 Ensure all stakeholders have the opportunity to comment 3.2 Record formal consultations for reporting 3.3 Organise consultations to include Indigenous cultural heritage
4. Coordinate the collection of data	4.1 Coordinate data collection and surveys 4.2 Develop rules and relationships between various data sets where required for loading into a database 4.3 Engage process data specialists for reporting to planning process 4.4 Record data in a database for further processing and reporting 4.5 Manage data collection and recording within budgetary constraints
5. Coordinate the development of goals and strategies	5.1 Use technical advisory groups to coordinate the development of goals and strategies 5.2 Obtain technical advice on issues at regional and local levels for integration into goals and strategies 5.3 Provide advice to groups to assist in the development of goals and strategies 5.4 Facilitate groups to provide suggestion for goals and strategies and their formulation at a regional level 5.5 Review original scope and basis for planning process at major developmental stages
6. Coordinate the preparation of a draft plan	6.1 Coordinate preparation of draft plan using technical and stakeholder input 6.2 Coordinate personnel to structure the draft plan 6.3 Ensure draft plan includes goals, strategies and outcomes that reflect consultation and technical advice

Element	Performance criteria
	6.4 Review plan against legislative requirements and government and regional policies and processes 6.5 Submit draft plan for editing, review and approval processes before public comment
7. Coordinate the revision of the plan to reflect consultations	7.1 Revise draft plan to reflect consultation comments 7.2 Use technical advice to develop responses to comments 7.3 Submit revised plan for editing, review and approval processes before final approval 7.4 Submit revised plan to regional planning groups before final approval
8. Submit plan for approval	8.1 Submit final plan for approval and publication 8.2 Evaluate planning process and outcomes to identify potential future improvements in process and outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW601A Coordinate the preparation of a regional resource management plan.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLPW601 Coordinate the preparation of a regional resource management plan

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- review existing planning documents and sources of information to inform the plan
- identify land management issues and potential solutions
- identify stakeholders to form discussion groups and seek individual input to planning
- organise for the collection and analysis of data to inform planning and monitor progress
- work with stakeholders and technical advisers to develop goals and performance criteria
- develop a draft plan for widespread consultation and feedback
- finalise the regional resource management plan
- complete all documentation to enterprise standards

Knowledge Evidence

The candidate must demonstrate knowledge of:

- regional and rural planning concepts from town planning, rural industry planning, and natural resource planning perspectives
- impact of government processes and industry activities in social and economic terms
- consultative techniques that take into consideration cross cultural and cultural factors relevant to social structures
- local government operations that affect the regional resource management plan
- natural resource management and issues
- sources of technical advice

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC101 Support landscape work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to provide support to others undertaking landscape works in public, commercial and domestic situations

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Landscape [LSC]

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for landscaping work	1.1 Identify the required materials, tools and equipment according to lists provided or supervisor's instructions 1.2 Conduct checks on materials, tools and equipment with insufficient or faulty items reported to the supervisor 1.3 demonstrate correct manual handling techniques when loading and unloading materials 1.4 Select and check suitable personal protective equipment (PPE) 1.5 Provide landscaping support according to workplace health and safety requirements and workplace information 1.6 Identify and report workplace hazards to the supervisor

Element	Performance criteria
2. Undertake landscape work as directed	2.1 Follow instructions and directions provided by supervisor and seek clarification when necessary 2.2 Undertake landscape work in a safe and environmentally appropriate manner 2.3 Carry out interactions with other staff and customers in a positive manner 2.4 Follow enterprise policy and procedures in relation to workplace practices, handling and disposal of materials 2.5 Report problems or difficulties in completing work to required standards or timelines to supervisor
3. Handle materials and equipment	3.1 Store waste material and debris produced during landscape work in a designated area according to supervisor's instructions 3.2 Handle and transport materials, equipment and machinery according to supervisor's instructions and enterprise guidelines 3.3 Maintain a clean and safe work site while undertaking landscaping activities
4. Clean up on completion of landscaping work	4.1 Return materials to store or dispose of according to supervisor's instructions 4.2 Clean, maintain and store tools and equipment according to manufacturer's specifications and supervisor's instructions 4.3 Make good the site according to supervisor's instructions 4.4 Report work outcomes to the supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC101A Support landscape work.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC101 Support landscape work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply safe work practices in landscape construction and maintenance
- clean up on completion of landscaping work
- prepare materials, tools and equipment for landscaping work
- undertake landscape work as directed

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for supporting landscape work
- safe work practices
- preparing for landscape work and cleaning up on project completion
- basic construction techniques
- landscaping tools and equipment
- maintenance practices for planted areas
- repair and maintenance of landscape features
- workplace health and safety and safe work practices

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC201 Assist with landscape construction work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide support to others undertaking landscape works in public, commercial and domestic situations.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for landscaping work	1.1 Identify required materials, tools and equipment according to lists provided and supervisor's instructions 1.2 Check all materials, tools and equipment and tell supervisor if there are insufficient or faulty items 1.3 Use correct manual handling techniques when loading and unloading material to minimise damage to the materials and the vehicle 1.4 Select and maintain suitable personal protective equipment (PPE)

Element	Performance criteria
	1.5 Identify and report any workplace health and safety hazards to supervisor
2. Undertake landscape work as directed	2.1 Follow instructions and directions provided by supervisor and ask for clarification when necessary 2.2 Communicate with other staff and clients in a positive and professional manner 2.3 Handle and dispose of materials as directed 2.4 Tell supervisor if there are problems or difficulties in completing work to required standards or timelines
3. Handle materials and equipment	3.1 Store waste material and debris produced during landscape work in a designated area 3.2 Handle and transport materials, equipment and machinery 3.3 Maintain a clean and safe work site while undertaking landscaping activities
4. Clean up on completion of landscaping work	4.1 Return materials to store or dispose of as directed 4.2 Clean, maintain and store tools and equipment 4.3 Restore site according to supervisor's instructions 4.4 Tell supervisor of work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC201A Assist with landscape construction work.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC201 Assist with landscape construction work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare materials, tools and equipment
- undertake landscape work as directed
- handle materials and equipment
- follow safe work practices and safety directions
- clean up on completion of landscape work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of assisting with landscape construction work
- basic construction techniques
- how to repair and maintain landscape features
- landscaping tools and equipment
- maintenance practices for planted areas
- safe work practices

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC202 Construct low-profile timber or modular retaining walls

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to construct low-profile timber or modular retaining walls in landscape settings.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare work	1.1 Read work instructions relating to constructing the retaining wall and confirm instructions with the supervisor 1.2 Prepare tools and equipment and use according to the supervisor's instructions 1.3 Identify and report to supervisor any manual handling and other work health and safety hazards

Element	Performance criteria
	1.4 Select, use and maintain personal protective equipment (PPE) and clothing 1.5 Check the quantity and quality of materials to make sure they conform to the requirements of the job plans 1.6 Locate and mark out services
2. Mark out site for retaining wall	2.1 Mark out the position of the retaining wall according to site plans 2.2 Determine the location and depth of excavations 2.3 Establish profiles to conform to the designated tolerances 2.4 Establish survey benchmarks
3. Prepare footings according to industry standards	3.1 Excavate foundations for the retaining wall to the required depth and dimensions as designated on the site plans 3.2 Remove soil and waste material and stockpile to ensure a safe working area 3.3 Locate reinforcing or steps in the excavated site and position accordingly 3.4 Position pegs to maintain levels of even depth and horizontal plane to the top of footings 3.5 Place, consolidate and finish footings to determined levels, to ensure coverage of reinforcement as necessary
4. Prepare and install retaining wall components	4.1 Prepare and lay out components for installation 4.2 Mark components to be cut to length and shape, and cut to the requirements of profiles already established 4.3 Install drainage media 4.4 Construct base layer of retaining wall to a point above the top of the drainage media and form weep holes where indicated 4.5 Back-fill and compact fill material behind base of retaining wall 4.6 Construct retaining wall components to required dimensions, profiles and levels as specified on the site plans 4.7 Set capping to top of retaining wall to specified levels with a tolerance appropriate to the style of capping
5. Clean up site and store tools and equipment	5.1 Dispose of or recycle soil and waste material from the site to minimise damage to the environment 5.2 Store and stack unused construction materials for future re-use 5.3 Clean and store all tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC202A Construct low-profile timber or modular retaining walls.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC202 Construct low-profile timber or modular retaining walls

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can

- read and interpret site and construction plans
- identify work health and safety hazards
- calculate materials required and mark out the area to be retained
- mark out the site and assemble materials
- construct footings and place reinforcing
- construct retaining walls as specified
- clear up the site and dispose of waste

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of low profile retaining walls
- construction approaches and methods
- construction materials for retaining walls
- safe lifting practices for large and heavy components
- methods of disposing soil and waste materials in order to minimise damage to the environment
- the environmental effects of altering water flow when installing retaining walls with or without drainage media
- the environmental impact of soil disturbance when excavating an area to be retained

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC203 Install aggregate paths

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install aggregate paths in landscape projects.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare for installation	1.1 Confirm work instructions with the supervisor 1.2 Prepare tools and equipment for use 1.3 Check the quantity and quality of materials 1.4 Identify and report to supervisor manual handling issues and other

Element	Performance criteria
	work health and safety hazards 1.5 Select, use and maintain personal protective equipment (PPE) and clothing 1.6 Put in place measures to avoid environmental impacts before starting work
2. Set out the site for path construction	2.1 Mark out the location of the proposed path 2.2 Put public risk protection measures in place
3. Undertake ground preparation	3.1 Clear the area of debris and excavate to base level 3.2 Relocate or dispose of soil and waste materials 3.3 Place and compact base material to the required finished level 3.4 Install drainage structures 3.5 Install edge restraints, where required 3.6 Check set out work at regular intervals with supervisor, according to the site plan
4. Lay surface aggregate materials	4.1 Spread surface aggregate materials over the area to the designated depth 4.2 Screed material to ensure consistent depth of materials 4.3 Level aggregate materials to the designated level and falls 4.4 Compact aggregate materials using appropriate machinery
5. Make good the site	5.1 Dispose of or recycle soil and waste material from the site 5.2 Reinststate areas disturbed by installation works 5.3 Clean and store all tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC203A Install aggregate paths.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC203 Install aggregate paths

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan and prepare for installation and site safety
- read and interpret site plans
- undertake ground preparation for the path
- lay base material and surface aggregate materials
- set the path out
- reinstate site at completion of work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of aggregate path installation
- base and aggregate materials and their performance
- environmental impacts of soil disturbance when installing paths
- types of machinery used in path construction
- types of signs and barriers that need to be erected around the site
- tools and equipment used for installing paths

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC204 Lay paving

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to lay modular paving in landscape projects.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare for paving work	1.1 Confirm work instructions with the supervisor 1.2 Prepare tools and equipment 1.3 Select, use and maintain personal protective equipment (PPE) and clothing 1.4 Check the quantity and quality of materials to make sure they

Element	Performance criteria
	<p>conform to the requirements of the job plans</p> <p>1.5 Identify work health and safety hazards, assess risks and report to supervisor</p>
2. Set out and prepare paving area	<p>2.1 Mark out the area to be paved according to site plan</p> <p>2.2 Assist with pegging the reduced levels of the proposed paving area according to site plans and supervisor's instructions</p>
3. Undertake ground preparation	<p>3.1 Excavate the area to shape, depth and dimensions to sub-base level</p> <p>3.2 Trim the sub base to the designated level and falls to ensure that the final level of paving can be achieved</p> <p>3.3 Construct drainage systems as necessary according to site plan</p> <p>3.4 Place and compact base material to the required finished level</p>
4. Lay bedding material	<p>4.1 Establish screed rails to ensure the bedding course is maintained</p> <p>4.2 Spread bedding material loosely over the area to ensure the designated bedding depth can be attained</p> <p>4.3 Level bedding material to the designated level and falls</p>
5. Lay pavers to a given pattern	<p>5.1 Set grid string lines to required levels to ensure the designated pattern of the project is attained and to maintain straight lines of components</p> <p>5.2 Set out pavers to the required dimensions and pattern</p> <p>5.3 Lay whole pavers and compact to the established finish level</p> <p>5.4 Mark, cut and fit pavers to fill gaps in the pattern within nominated tolerances</p> <p>5.5 Install permanent edge constraints to prevent movement of pavers</p> <p>5.6 Spread sand on the paved area and compact to the finished level</p>
6. Clean site and store tools and equipment	<p>6.1 Sweep paving to produce a clean and flat surface free of debris</p> <p>6.2 Dispose of or recycle soil and waste material from the site to ensure minimal impact on the environment</p> <p>6.3 Clean and store all tools and equipment</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC204A Lay paving.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC204 Lay paving

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- read, interpret and apply information from a site plan
- prepare the site for paving
- lay bedding material
- lay pavers to pattern
- clean up the site and dispose of waste

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of paving
 - methods of disposing of soil and waste materials
 - pavers
 - paving styles and methods
 - site layout and planning
 - the potential environmental impact of a paving project
 - the types of signs and barriers that need to be erected around an area to be paved

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC205 Install tree protection devices

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to protect trees during construction work by installing protective devices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to install	1.1 Read work instructions relating to the task and confirm with the supervisor 1.2 Prepare tools and equipment and use according to the supervisor's instructions

Element	Performance criteria
	1.3 Identify and report manual handling and other work health and safety hazards 1.4 Select, use and maintain personal protective equipment (PPE) and clothing 1.5 Identify trees to be protected, and method of protection to be used 1.6 Collect protection devices or materials to assemble devices and check against requirements as indicated in tree protection plan
2. Install protection devices	2.1 Assemble and install tree protection devices 2.2 Carry out work in a manner that minimises risk of damage to trees and the surrounding environment
3. Complete installation activities	3.1 Check protection devices for their effectiveness 3.2 Report damaged and ineffective devices to the supervisor 3.3 Maintain a clean and safe area throughout and on completion of work 3.4 Record workplace outcomes and report to the supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC205A Install tree protection devices.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC205 Install tree protection devices

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- read and interpret site and tree protection plans
- select and operate tools and equipment for protecting trees, constructing and assembling tree protection devices and for traffic control
- measure materials used in constructing and assembling tree protection devices
- assemble and build protection devices
- clean up materials and maintain worksite

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of installing tree protection devices
- how to care and maintain trees during protection operations
- techniques for assembling or constructing a range of tree protection devices
- the application of a range of tree protection devices suitable to the requirements of the tree species
- the damage that can occur to trees during construction work
- principles and techniques relating to the choice of tools and equipment for installing tree protection devices

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC301 Set out site for construction works

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to set out a site for construction works in accordance with site plans and specifications. This may be done in advance of proposed works or in conjunction with construction works already being carried out.

This unit applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare work	1.1 Interpret plans and specifications 1.2 Compare site plan and specifications with other available plans 1.3 Select tools and equipment required for setting out construction

Element	Performance criteria
	works and check for serviceability 1.4 Identify hazards, assess risks and implement controls 1.5 Consider environmental impact of proposed construction works in interpreting site plans
2. Locate and mark out position of construction works	2.1 Locate existing site features from the site plan 2.2 Locate position of proposed construction works 2.3 Using the correct scale transfer scale measurements of lines, shapes, angles and dimensions from the site plan to site 2.4 Mark out the shape of proposed construction works on site
3. Establish datum point and survey benchmarks on site	3.1 Establish datum point to ensure all existing and proposed construction works can be linked by survey equipment 3.2 Select and establish survey benchmarks on positions or structures on site according to site plans or specifications
4. Take and verify site levels	4.1 Set up levelling equipment and check for accuracy of readings 4.2 Adjust instruments which are out of specification 4.3 Take levels and verify and record in accordance with established datum point and survey benchmarks 4.4 Clean, maintain and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC301A Set out site for construction works.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC301 Set out site for construction works

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret site plans and specifications
- use mathematical and geometrical principles to mark out a site for construction work
- use a range of surveying instruments
- establish datum points and survey benchmarks on site
- take and verify site levels

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of site set out for landscape works
- how other plans may be referred to in assisting setting out a site
- how to determine if other plans may be referred when setting out a site

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC302 Construct landscape features using concrete

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to construct concrete structures and features as a component of landscape project works.

This unit applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare work	1.1 Interpret plans and specifications 1.2 Check the quantity and quality of materials 1.3 Select tools and equipment and check for serviceability 1.4 Identify hazards, assess risks and implement controls

Element	Performance criteria
	1.5 Select and use personal protective equipment (PPE) 1.6 Identify and ameliorate environmental impacts of proposed concrete works
2. Set out and prepare the site	2.1 Determine and locate services 2.2 Mark out the position of the structure or feature according to plans 2.3 Establish profiles to conform to the nominated tolerances 2.4 Prepare subsoil by removing all debris, vegetable matter and topsoil to provide a solid foundation for concrete 2.5 Install drainage systems according to plans and specifications 2.6 Install form work to the site in a manner that will ensure it remains rigid during concrete pouring operations 2.7 Place and compact sub-base material to the required finished levels 2.8 Complete preparation of the site according to the type of structure or feature to be constructed 2.9 Place reinforcement as designated in plans and specifications
3. Mix and pour concrete	3.1 Determine proportions for concrete mix according to the strength requirements of the project 3.2 Determine the volume of dry materials necessary to produce final concrete mix 3.3 Mix together all dry ingredients and required additives to ensure a thorough blending of all materials is achieved 3.4 Introduce sufficient water to produce a concrete mix to the required consistency 3.5 Pour concrete to designated levels in a manner to avoid segregation of materials 3.6 Consolidate concrete using an approved vibration method
4. Finish concrete	4.1 Screed concrete to the desired finished level 4.2 Trowel surface to desired finish 4.3 Finish concrete off according to plans and specifications
5. Check quality of work and clean-up site	5.1 Inspect the quality of finished works to ensure the required standard has been achieved 5.2 Remove and clean form work to allow reuse 5.3 Ensure all clean-up works minimise impact to the environment 5.4 Clean, maintain and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC302A Construct landscape features using concrete.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC302 Construct landscape features using concrete

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret site plans and specifications
- set out and prepare a site for concrete
- measure and construct profiles
- establish levels using levelling equipment
- place reinforcement
- pour, consolidate and finish concrete

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of constructing concrete landscape features
- industry standards in relation to reinforcing and consolidating concrete
- MPA testing theory and what affects MPA specifications in a concrete mix
- sub-base and sub-grade materials and preparation
- the comparative environmental implications associated with soil removal and the placement of concrete

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC303 Construct brick and block structures and features

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to construct brick structures and features or block structures and features, or both as a component of a landscaping project.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare work	1.1 Interpret plans and specifications 1.2 Check the quantity and quality of materials 1.3 Select tools and equipment and check for serviceability 1.4 Identify hazards, assess risks and implement controls accordingly

Element	Performance criteria
	1.5 Identify and ameliorate the potential environmental impacts of proposed brick and block construction works 1.6 Select and use suitable personal protective equipment (PPE)
2. Set out and prepare the site	2.1 Determine and locate services 2.2 Mark out the position of the structure or feature according to site plans 2.3 Establish profiles to conform to the nominated tolerances 2.4 Prepare subsoil by removing all debris, vegetable matter and topsoil to provide a solid foundation for construction 2.5 Install drainage systems according to site plans and specifications 2.6 Place and compact sub-base to material the required finished levels
3. Construct structure or feature	3.1 Mix mortar to determined ratio and add bonding and colouring agents and other appropriate admixes, in accordance with specifications 3.2 Lay damp proofing and base course of brick or block work 3.3 Lay courses of brick or block work using designated bond(s) in a manner that will ensure the viability and stability of the structure 3.4 Apply finishes to brick or block work
4. Check quality of work and clean-up site	4.1 Inspect the quality of finished works to ensure the standard of the finished structure or feature has been achieved 4.2 Clean down brick or block work surfaces in an environmentally safe and sensitive manner 4.3 Clean, store and maintain all tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC303A Construct brick and block structures and features.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC303 Construct brick and block structures and features

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret site plans and specifications
- measure and construct profiles using mathematical techniques
- construct brick or block structure or feature
- establish levels using levelling equipment
- check quality of work and cleaning up of site

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of brick and block construction
- components of mortar, including bonding and colouring agents
- environmental impacts of bricks and block construction works

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC304 Erect timber structures and features

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to erect timber structures and features as a component of landscape project works.

This unit applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare work	1.1 Interpret plans and specifications 1.2 Check the quantity and quality of materials to ensure they conform to design drawings and specifications 1.3 Select tools and equipment and check for serviceability 1.4 Identify hazards, assess risks and implement controls accordingly

Element	Performance criteria
	1.5 Select and use suitable personal protective equipment (PPE)
2. Set out the site and prepare the profile and footings	2.1 Determine and locate services 2.2 Mark out the position of the structure or feature 2.3 Establish profiles to conform to the nominated tolerances 2.4 Excavate and prepare footings according to the type of structure to be erected
3. Prepare and cut timber components	3.1 Prepare components for assembly 3.2 Mark out the length of components and the positions of cuts and joints 3.3 Cut, check and accurately drill components in preparation for joining and assembly
4. Assemble and erect structure	4.1 Fix, join or assemble timber components into position and fix into place 4.2 Install remaining components and fix into position 4.3 Finish off structure to ensure all components are secure and complete 4.4 Apply coatings
5. Check quality of work and clean-up site	5.1 Inspect the quality of finished works to ensure the required standard has been achieved 5.2 Clean debris from structure and site 5.3 Dispose of waste material in an environmentally safe and sensitive manner 5.4 Clean, store and maintain tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC304A Erect timber structures and features.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC304 Erect timber structures and features

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- mark out a site for timber structures and features according to design drawings and specifications
- apply a variety of surface finishes
- establish levels and prepare footings where required
- estimate quantities
- use levelling equipment
- excavate footings
- fix, join or assemble timbers using a variety of recognised methods
- use a power tools efficiently and safely

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices for erecting timber structures
- common timber joins
- levelling principles and techniques
- footings for timber structures and their construction methods
- timber fixing methods and products
- timber properties and characteristics

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC305 Construct stone structures and features

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to construct stone structures and features as a component of landscape project works.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare work	1.1 Interpret plans and specifications 1.2 Check the quantity and quality of materials to ensure they conform to design drawings and specifications 1.3 Select tools and equipment and check for serviceability 1.4 Identify workplace health and safety hazards, assess risks and

Element	Performance criteria
	implement controls 1.5 Identify and report environmental implications of erecting stone structures
2. Set out and prepare the site	2.1 Locate services from site plans 2.2 Mark out the position of the structure or feature according to design drawings and specifications 2.3 Prepare base by removing all debris, vegetable matter and topsoil to provide a solid foundation for construction 2.4 Install drainage systems according to design drawings and specifications 2.5 Place and compact sub-base material to the finished levels
3. Construct structure or feature	3.1 Mix mortar and add bonding and colouring agents and other admixes as required, in accordance with specifications 3.2 Lay damp proofing and base course of stone work according to design drawings and specifications 3.3 Lay courses of stone work using designated bond/s in a manner that will ensure the viability and stability of the structure and according to design drawings and specifications
4. Install stone paving	4.1 Set out and prepare area to be paved according to the site plan 4.2 Excavate the area to shape, depth and dimensions to sub-base level 4.3 Trim the sub base to the designated level and falls and place and compact base material to the finished level 4.4 Spread bedding material over the area and level to the designated level and falls 4.5 Place stone and fit to accurately fill gaps in the pattern within tolerances nominated within the site plan 4.6 Install edge constraints as required by the site plan
5. Check quality of work and clean-up site	5.1 Inspect finished works to ensure the standard of the finished structure or feature is in accordance with design drawings and specifications 5.2 Clean stone work surfaces in an environmentally safe and sensitive manner 5.3 Clean and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC305A Construct stone structures and features.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC305 Construct stone structures and features

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret plans and specifications
- prepare the site and install drainage systems
- set out base for paving
- use levelling equipment
- construct stone work with correct mortar ratio

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for constructing stone structures and features
- comparative environmental implications associated with soil disturbance and the establishment of drainage systems
- bonding and colouring agents and other admix components of mortar used in the construction of stone structures and features
- stone structure construction

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC306 Implement a paving project

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install and construct a paved surface to a prepared base within a documented scope of works incorporated in a project across a range of situations and environments.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for paving project	1.1 Clarify the requirements of the paving project 1.2 Select and use tools, equipment and machinery and check for serviceability 1.3 Identify workplace health and safety hazards, assess risks and

Element	Performance criteria
	implement controls 1.4 Identify and ameliorate environmental impacts of proposed works 1.5 Select, use and maintain personal protective equipment (PPE) 1.6 Organise delivery of materials to site according to workplace priorities
2. Set out and prepare the site	2.1 Erect site bunting, control pedestrian access and place safety signage 2.2 Locate services 2.3 Make provision for irrigation lines to cross paved areas 2.4 Mark out the paving pattern according to plans and specifications 2.5 Place and compact sub-base material to the required finished levels 2.6 Incorporate surface drainage as specified
3. Implement paving project	3.1 Construct paving 3.2 Install appropriate drainage 3.3 Use tools, equipment and machinery safely in accordance with enterprise safe operating procedures and work health and safety requirements
4. Check quality of work and clean-up site	4.1 Inspect the quality of finished works to ensure they have met the required drawings and specifications standards 4.2 Clean work-site and dispose of debris in an environmentally safe and sensitive manner 4.3 Clean, maintain and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC306A Implement a paving project.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC306 Implement a paving project

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine project requirements from plans
- calculate material and resource requirements
- organise work and use tools and equipment
- use tools and equipment to construct paving
- clean up, store and maintain tools, machinery and equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of paving
- landscape paving materials
- methods and practices for maintaining and repairing paved areas
- methods of work schedule programming
- set-out techniques
- the range and use of required materials, equipment and machinery

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC307 Implement a retaining wall project

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install and construct a retaining wall.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for retaining wall project	1.1 Interpret plans and specifications 1.2 Identify equipment and material resource requirements according to the scope of the construction work 1.3 Identify workplace health and safety hazards, assess risks and implement controls

Element	Performance criteria
	1.4 Identify and ameliorate environmental impacts of the proposed works 1.5 Select, use and maintain personal protective equipment (PPE) 1.6 Select tools and equipment and check for serviceability 1.7 Organise delivery of materials to site according to workplace priorities
2. Mark out site for retaining wall	2.1 Erect site bunting and place safety signage 2.2 Locate services 2.3 Mark out the position of the retaining wall 2.4 Determine the location and depth of excavations from construction plans 2.5 Establish profiles to conform to the designated tolerances 2.6 Establish survey benchmarks
3. Construct retaining wall	3.1 Assemble or install retaining wall components in accordance to plans and specifications 3.2 Install appropriate drainage in accordance with plans and specifications 3.3 Use tools and equipment safely and in accordance with enterprise safe operating procedures and work health and safety requirements
4. Check quality of work and clean-up site	4.1 Inspect the quality of finished works to ensure the required standard has been achieved 4.2 Clean paved surfaces and dispose of all debris in an environmentally safe and sensitive manner 4.3 Clean, maintain and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC307A Implement a retaining wall project.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC307 Implement a retaining wall project

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- read and interpret documentation associated with retaining wall projects
- calculate material and resource requirements
- establish survey benchmarks
- excavate and profile soil levels
- use tools and equipment to construct retaining wall projects

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of retaining walls
- environmental impacts of landscape works
- landscape retaining wall materials and construction techniques
- legislative requirements and codes of practice affected by landscape works
- local council permit requirements for landscape works
- materials, equipment and machinery that may be required for the project
- methods and practices for maintaining and repairing retaining walls
- set out techniques
- work health and safety issues

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC308 Install metal structures and features

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install metal structures and features as a component of landscape project works.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare work	1.1 Interpret plans and specifications 1.2 Check the quantity and quality of materials 1.3 Select tools and equipment and check for serviceability 1.4 Identify hazards, assess risks and implement controls

Element	Performance criteria
	1.5 Select and use personal protective equipment (PPE)
2. Set out the site for the structure	2.1 Determine and locate services 2.2 Mark out the position of the structure or feature 2.3 Establish profiles to conform to nominated tolerances 2.4 Excavate and prepare footings according to the type of structure to be erected
3. Prepare and cut metal components	3.1 Lay components out for assembly 3.2 Mark the length of components and the positions of joints 3.3 Cut, check and join components in preparation for joining and assembly
4. Assemble and erect structure	4.1 Fix, join or assemble metal components into position and fix into place 4.2 Install remaining components and fix into position 4.3 Finish off structure to ensure all components are secure and complete 4.4 Apply coatings
5. Check quality of work and clean-up site	5.1 Inspect the quality of finished works to ensure they have met the required drawings and specifications standards 5.2 Clean debris from structure and site 5.3 Remove and dispose of all debris in a manner that minimises risk to the environment 5.4 Store unused metal components for future re-use 5.5 Clean, maintain and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC308A Install metal structures and features.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC308 Install metal structures and features

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan and prepare metal structures and features using plans and specifications
- mark out sites for metal structures and features using design drawings and specifications
- use surveying instruments
- establish levels and prepare footings
- excavate footings
- estimate quantities
- use power tools efficiently and safely
- measure and mark lengths of metal components
- fix, join or assemble metal components using a variety of recognised methods
- apply a variety of surface finishes

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of installing metal structures and features
- levelling principles and techniques
- footings for timber structures and their construction methods

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC309 Install water features

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install water features. Water features may include waterfalls, ponds, waterways and fountains. They may be prefabricated as supplied by irrigation suppliers and garden centres or formed 'in situ'.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare work	1.1 Interpret plans and specifications 1.2 Check the quantity and quality of materials 1.3 Select tools and equipment and check for serviceability 1.4 Identify work health and safety hazards, assess risks and

Element	Performance criteria
	implement controls 1.5 Select and use personal protective equipment (PPE) 1.6 Identify the environmental implications of constructing water features
2. Set out and prepare the site	2.1 Locate services as specified 2.2 Determine the exact location and depth of excavations and mark out accordingly 2.3 Excavate site to the shape, depth and dimensions as marked out 2.4 Construct drainage systems as specified 2.5 Place and compact bedding material to the required finished levels 2.6 Sort and stockpile soil and waste material ready for removal, reuse or recycling
3. Install water feature and accessories	3.1 Install the waterproof membrane, prefabricated shell or formed 'in situ' feature as specified 3.2 Install all accessories to the feature as specified with consideration to safety issues 3.3 Fill the feature with water, test for leaks and repair accordingly 3.4 Treat water to remove or neutralise contaminants resulting from excavation and installation work
4. Check quality of work and clean-up site	4.1 Check any mechanical features and adjust to ensure correct operation 4.2 Clean debris from structure and site 4.3 Dispose of soil and waste material in an environmentally safe and sensitive manner 4.4 Clean, maintain and store tools and equipment 4.5 Inspect quality of finished works to ensure standard of the finished works is in accordance with drawings and specifications

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC309A Install water features.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC309 Install water features

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine project requirements from plans
- use surveying instruments
- Set out and prepare a water feature site
- measure and calculate area, depth and volume
- use tools and equipment to construct a water feature
- clean up the site

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of water feature installation
- pipe sizes, types and applications
- pumping systems and accessories associated with water features
- set-out techniques
- water treatment methods

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC310 Implement a tree transplanting program

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a tree transplanting program.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for tree transplantation	1.1 Liaise with local authorities and information services to determine location of services and utilities, local by-laws and regulations governing the transplanting and transportation of trees 1.2 Inspect tree to ensure the appropriate transplanting operations are implemented

Element	Performance criteria
	<p>1.3 Identify hazards, assess risks and implement control measures</p> <p>1.4 Select and use personal protective equipment (PPE)</p> <p>1.5 Select, prepare and use tools, equipment and machinery necessary to implement tree transplanting</p> <p>1.6 Select, prepare and use root ball and crown treatments according to the requirements of the species to ensure the tree remains viable throughout the transplanting process</p> <p>1.7 Notify local residents and authorities where necessary as part of preparing site for transplanting activities</p> <p>1.8 Confirm assets, property and vegetation related to work zone activities are protected, relocated, or secured from potential damage during transplanting</p>
2. Implement transplanting operations	<p>2.1 Excavate the soil around the root zone and undercut the root ball with minimum stress to the plant</p> <p>2.2 Prune roots where required to meet the appropriate Australian Standard</p> <p>2.3 Stabilise tree as the root system is undercut and apply anti-transpirants as a root soak or foliar spray to maintain viability of the plant</p> <p>2.4 Bind root ball with appropriate material to ensure adequate soil is retained and keep moist prior to transportation and installation</p> <p>2.5 Lift tree and secure for potential storage or transportation using safe lifting techniques</p> <p>2.6 Prepare and handle tree or shrub to minimise damage during transportation</p> <p>2.7 Implement appropriate drainage and soil improvements</p> <p>2.8 Re-install and stabilise the tree</p>
3. Maintain health and viability of transplanted tree	<p>3.1 Apply water to the transplanted tree over a sustained period to minimise leaf loss and promote new growth</p> <p>3.2 Apply anti-transpirants and provide nutritional requirements of the species</p> <p>3.3 Install tree protection devices to provide adequate support and protection</p> <p>3.4 Monitor tree condition and site to ensure the plant remains healthy</p> <p>3.5 Clean, maintain and store tools, equipment and machinery at completion of work</p> <p>3.6 Record completed transplanting program and report to management or the client</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC310A Implement a tree transplanting program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC310 Implement a tree transplanting program

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- locate existing services and utilities, local by-laws and regulations
- determine tree transplanting requirements from specifications
- prepare tools and equipment, tree and new site for tree transplanting
- calculate tree mass and size for safe removal
- bind and wrap root balls and crowns
- lift, reinstall and stabilise a tree

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of tree transplanting
- causes of stress in trees resulting from transplanting, storage and transportation
- environmental impact of tree removal and transplantation
- principles and methods of operating tree moving equipment
- problems and methods relating to the aftercare of trees during their establishment period
- requirements for securing and signage when transporting trees on road vehicles
- safety procedures and potential hazards of removing and transplanting trees
- the relevant Australian Standards and codes of practice
- tree anatomy and physiology as it relates to transplanting trees
- tree transplanting techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC401 Supervise landscape project works

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise landscape project works.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify scope of landscape project works	1.1 Identify the nature of the landscape project work and extent of responsibilities and check against landscape documentation 1.2 Identify personnel and other resources required to undertake landscape works according to scope of project 1.3 Develop a work program to ensure that project outcomes are

Element	Performance criteria
	<p>reached within designated time lines</p> <p>1.4 Identify workplace health and safety hazards, assess risks and implement controls</p> <p>1.5 Identify environmental impact of proposed landscape project works</p> <p>1.6 Select and use personal protective equipment (PPE)</p>
2. Coordinate the supply of materials and equipment	<p>2.1 Calculate material quantities and equipment requirements to ensure an ongoing work program is maintained</p> <p>2.2 Order material and equipment, check for quantity and quality and store as required</p> <p>2.3 Convey and confirm any specific delivery instructions with suppliers to ensure materials are delivered according to work program</p> <p>2.4 Send any rejected material back to supplier and re-order</p>
3. Monitor project works	<p>3.1 Monitor work program and adjust to ensure the site is developed and that project outcomes are reached within designated timelines</p> <p>3.2 Identify, record and report variations to the work program, issues likely to cause delays, and contingencies beyond the scope of the project</p> <p>3.3 Monitor the work site to ensure it remains in a clean, tidy and safe condition throughout and on completion of works</p>
4. Complete site works	<p>4.1 Inspect site prior to practical completion to ensure all works have been undertaken according to client needs and relevant documentation</p> <p>4.2 Note any works not complying and rectify</p> <p>4.3 Produce a completed landscape project works report for client</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC401A Supervise landscape project works.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC401 Supervise landscape project works

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify scope of landscape project work
- identify personnel and other resource requirements
- develop a project plan
- calculate materials and equipment
- control the quality of supplied materials
- monitor, record and report on progress of a works program
- complete a landscape works report
- liaise with clients

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of supervising landscape works
- causes of disruption to work programs and their effect on quality and time schedules
- environmental impacts of landscape works
- hazard identification, assessment and control
- how to conduct site assessment and work site establishment
- issuing of instructions, variations and requests for information
- format, frequency and documentation for job reporting requirements
- legislative requirements and legal responsibilities
- contracts, plans and specifications for project documentation
- supervision techniques of staff and sub-contractors

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC501 Survey and establish site levels

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake site surveys and map levels and issues of levels in gardens.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Undertake the site survey	1.1 Determine survey items from the existing plan or client brief 1.2 Measure survey items and relevant landscape features 1.3 Take measurements and reduce with reference to the design

Element	Performance criteria
	1.4 Check and record measurements
2. Read maps and plans	2.1 Take current magnetic declinations and magnetic bearings 2.2 Determine differences between true and magnetic north and place north points on plans 2.3 Transfer magnetic bearings to true north points on plans
3. Record site details	3.1 Record orientation and levels on site plan 3.2 Produce scale plan for a garden design 3.3 Present plan of site to the client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC501A Survey and establish site levels.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC501 Survey and establish site levels

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- read maps and plans
- record levels of survey items and site features
- orientate a landscape site
- use survey equipment
- analyse surveying and levelling results
- map orientation and levels and issues of levels on a scale plan
- book and log results
- produce scale drawings for designs and costings
- Liaise with clients

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of establishing site levels
- techniques to deal with different garden shapes
- surveying tools and equipment used in landscape projects

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC502 Manage landscape projects

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage landscape projects.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify issues relating to the landscape project	1.1 Identify the goals and objectives of the project and discuss with the client 1.2 Analyse landscape documentation to determine the nature and

Element	Performance criteria
	<p>scope of the project</p> <p>1.3 Identify potential constraints to the success of the project</p> <p>1.4 Consider the environmental impact of the proposed landscape project works</p> <p>1.5 Identify work health and safety hazards, assess risks and implement controls</p>
2. Maintain effective client liaison	<p>2.1 Clarify responsibilities of all parties involved in the project according to the contract</p> <p>2.2 Clarify procedures to vary the contract to the satisfaction of all stakeholders</p> <p>2.3 Identify emergency procedures according to contract terms and conditions</p> <p>2.4 Establish communication obligations in respect of the work program according to contractual obligations and sound business principles</p>
3. Develop work schedule	<p>3.1 Identify and document work schedules and timelines of operations in a form that is accessible and understandable to all relevant personnel</p> <p>3.2 Identify resources required for the landscape project according to the contract and landscape design</p> <p>3.3 Identify and document quantity, quality and timing of supply of each input and service</p> <p>3.4 Establish key performance outcomes and indicators to measure performance of all operations and personnel</p>
4. Manage contractors	<p>4.1 Prepare standard contracts for specific works in line with the landscape design and contract</p> <p>4.2 Monitor progress of works against contract according to industry standards</p> <p>4.3 Identify, negotiate, implement and record variations</p> <p>4.4 Identify, rectify and record non-conforming elements of the contract</p> <p>4.5 Initiate progress payments and final payments according to the terms of contract</p>
5. Submit works for hand over	<p>5.1 Undertake site inspection with relevant personnel at completion of works and prior to hand over</p> <p>5.2 Note, record and rectify all items below specification</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC502A Manage landscape projects.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC502 Manage landscape projects

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare landscape project documentation
- develop and cost a bill of quantities
- develop a schedule of works
- organise and manage the works program and works team
- identify sub-contracted work and program
- manage sub-contractors
- identify, negotiate and implement variations to the contract
- identify and rectify non-conforming elements to the contract
- liaise with clients

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of managing landscape projects
- project management principles
- public liability and legal responsibilities
- regulations having possible bearing on landscape projects
- the environmental implications of a landscape project
- types of landscape machinery and equipment

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSC503 Manage a tree transplanting program

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage a tree transplanting program.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Landscape (LSC)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess the sites and trees	1.1 Undertake site assessments to identify site conditions which may impact upon transplanting activities at the lifting site and the transplant site

Element	Performance criteria
	<p>1.2 Identify work health and safety hazards, assess risks and implement suitable controls</p> <p>1.3 Liaise with authorities and information services to determine location of services and utilities, and regulations governing the transplanting and transportation of trees</p> <p>1.4 Assess trees for viability for transplanting to ensure the best time and conditions are chosen according to tree species characteristics</p>
2. Determine transplanting requirements	<p>2.1 Identify the appropriate tools, equipment, machinery and specialist contractors</p> <p>2.2 Identify the tree species to be transplanted</p> <p>2.3 Determine excavation methods and root ball preparation according to the characteristics of the species</p> <p>2.3 Determine crown reduction and protection tasks according to the characteristics of the species and the appropriate Australian Standard</p> <p>2.4 Calculate root ball and tree mass to determine appropriate lifting and transport requirements</p> <p>2.5 Coordinate labour requirements to ensure trees are prepared, lifted, transported and re-installed with minimum stress to the trees, and with regard to safety and environmental factors</p> <p>2.6 Identify a transport route with regard to the size and shape of the tree and road transport vehicle requirements</p> <p>2.7 Determine and document an aftercare plan outlining monitoring frequency and methods to maintain the health and viability of the transplanted trees in the program</p>
3. Document a tree transplanting program	<p>3.1 Document the transplanting program</p> <p>3.2 Document resources and costing details</p> <p>3.3 Communicate transplanting program for implementation</p> <p>3.4 Assess completed tree transplanting program to ensure that transplantation was undertaken according to the identified program and budget guidelines</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSC503A Manage a tree transplanting program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSC503 Manage a tree transplanting program

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess tree viability for transplantation
- liaise with authorities and information services regarding transplanting and transporting trees
- calculate project resources and costs
- calculate root ball and tree mass and size
- assess crown and root reduction requirements
- determine transplant and transportation requirements and removal methods
- develop transport plan
- develop a budget
- document and communicate transplanting program, contingency planning and after-care plan
- assess and control risks

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of tree transplanting management
- aftercare management
- causes of stress in trees resulting from resulting from transplanting, storage and transportation
- current practices and techniques in tree preparation, lifting, transportation and replanting
- local government tree protection and preservation regulations
- methods of managing tree moving operations
- planning considerations and environmental implications of transplanting activities

- requirements for securing and signing trees for road transportation
- the relevant Australian Standards and Codes of Practice
- tree anatomy, physiology and biochemistry
- tree transplanting techniques appropriate to the specific requirements of the species

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK101 Support extensive livestock work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to support extensive livestock work.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy. They undertake defined routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for extensive livestock	1.1 Identify the required materials, tools and equipment using provided lists and supervisor's instructions

Element	Performance criteria
work	1.2 Carry out checks on all materials, tools and equipment and report insufficient or faulty items to the supervisor 1.3 Use safe manual handling techniques when loading and unloading materials and equipment 1.4 Select and use suitable personal protective equipment (PPE) and check prior to use 1.5 Identify hazards and report to supervisor
2. Undertake extensive livestock work as directed	2.1 Follow instructions and directions provided by supervisor and seek clarification when necessary 2.2 Carry out work in a safe and environmentally appropriate manner 2.3 Interact with other staff and customers in a positive and professional manner 2.4 Report problems or difficulties in completing work to required standards or timelines to supervisor 2.5 Carry out livestock handling and husbandry activities in line with enterprise animal welfare policies
3. Handle materials and equipment	3.1 Store waste material produced during work in a designated area according to supervisor's instructions 3.2 Handle and transport materials, equipment and machinery appropriately 3.3 Maintain a clean and safe work site
4. Clean up on completion of work	4.1 Return materials to store or dispose of appropriately 4.2 Clean, maintain and store tools and equipment 4.3 Report work outcomes to supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK101A Support extensive livestock work.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK101 Support extensive livestock work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow safe work practices
- participate in teams and contribute to team objectives
- understand instructions
- read labels and work health and safety symbols
- use safe animal handling techniques
- use livestock handling tools and equipment
- assist in monitoring livestock health and welfare
- provide assistance to repair and maintain facilities
- follow work health and safety policies
- follow enterprise animal welfare and sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- safe work practices
- animal handling techniques including animal welfare requirements
- tools and equipment
- repair and maintenance of facilities work health and safety and environmental protection legislation and enterprise procedures

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK102 Support intensive livestock work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide support to others undertaking intensive livestock production.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy. They undertake defined routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for intensive livestock	1.1 Identify required materials, tools and equipment from lists and instructions provided by enterprise and supervisor

Element	Performance criteria
work	1.2 Carry out checks on all materials, tools and equipment and report insufficient or faulty items to the supervisor 1.3 Use safe manual handling techniques when loading and unloading materials and equipment 1.4 Select, check and use suitable personal protective equipment (PPE) 1.5 Identify work health and safety hazards and report to or seek support from supervisor
2. Undertake intensive livestock work as directed	2.1 Follow instructions and directions provided by supervisor and seek clarification when necessary 2.2 Carry out work in a safe and environmentally appropriate manner 2.3 Carry out livestock work in line with enterprise animal welfare policies 2.4 Interact with other staff and customers in a positive and professional manner 2.5 Report problems or difficulties in completing work to required standards or timelines to supervisor
3. Handle materials and equipment	3.1 Store waste material produced during work in a designated area according to supervisor's instructions 3.2 Handle and transport materials, equipment and machinery appropriately 3.3 Maintain a clean and safe work site
4. Clean up on completion of work	4.1 Return materials to store or dispose of appropriately 4.2 Clean, maintain and store tools and equipment appropriately 4.3 Report work outcomes to supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK102A Support intensive livestock work

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK102 Support intensive livestock work

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow work health and safety procedures and instructions provided by enterprise and supervisor
- prepare materials, tools and equipment for intensive livestock work
- undertake intensive livestock work as directed
- handle materials and equipment appropriately
- clean up on completion of work appropriately
- follow enterprise environmental, animal welfare and biosecurity policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant work health and safety, animal welfare and biosecurity requirements and sustainability practices
- materials, tools and equipment used for intensive livestock work
- safe manual handling techniques for loading and unloading materials and equipment
- use, maintenance and storage of appropriate Personal Protective Equipment
- animal handling techniques including animal welfare
- positive and professional communication
- methods of waste storage
- handling and transportation of materials, equipment and machinery
- methods for maintenance of a clean and safe work site
- storage of materials
- cleaning, maintenance and storage of tools and equipment

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK201 Assist with feeding in a production system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist with the process of preparing and providing feed and water for livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare and distribute	1.1 Check requirements for the daily feeding program with supervisor

Element	Performance criteria
feed	1.2 Identify hazards and report to supervisor 1.3 Select, use and maintain suitable personal protective equipment 1.4 Select and check tools, machinery and equipment for readiness 1.5 Provide assistance for weighing and measuring feed 1.6 Load feed into trolleys from silos or other storage bins and distribute feed 1.7 Check automatic or computerised feeders, where used, for blockages and correct functioning 1.8 Report abnormalities or irregularities with feed stocks to supervisor
2. Check watering systems	2.1 Adjust watering systems for height or position where appropriate 2.2 Check water level and flow and make adjustments accordingly 2.3 Empty and clean watering containers or lines where necessary
3. Keep workplace records	3.1 Keep basic feeding records and report to supervisor 3.2 Clean, maintain and store tools, machinery and equipment 3.3 Apply enterprise biosecurity and environmental policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK201A Assist with feeding in a production system

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK201 Assist with feeding in a production system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and follow safety directions
- identify a range of feed types and qualities
- identify feed contaminants
- prepare and distribute feed
- check watering systems
- recognise and rectify minor operational faults
- interpret and apply task instructions, communicate with work team and supervisor and record and report faults, workplace hazards and accidents
- complete records and documentation of feed use and volumes for the enterprise section
- use machinery and equipment associated with providing feed
- report on feeding to supervisors
- follow enterprise work health and safety policies
- follow enterprise biosecurity and environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- silo operations, tractors and associated feeding machinery and equipment
- cleaning and storage of machinery, equipment and materials
- enterprise recording and reporting procedures
- common grains, meals, pelleted and liquid feeds
- evidence of spoilage and handling of spoilt feeds
- enterprise work health and safety, biosecurity and environmental policies

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK202 Care for health and welfare of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to care for the health and welfare of livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Discuss work requirements with supervisor and seek clarification where necessary 1.2 Identify work health and safety risks and inform supervisor 1.3 Prepare and use suitable personal protective equipment 1.4 Select and prepare appropriate tools and equipment
2. Monitor and assess livestock health and welfare	2.1 Check livestock regularly to assess health and welfare 2.2 Recognise and report symptoms of injuries, ill health or abnormal behaviour 2.3 Handle livestock in line with enterprise animal welfare policies
3. Implement livestock health and welfare procedures	3.1 Follow quarantine and biosecurity procedures as instructed to minimise the risk of disease 3.2 Maintain thorough personal hygiene practices in all activities associated with handling livestock to reduce risks from diseases that are transmissible to humans 3.3 Treat sick and injured livestock or make arrangements to humanely destroy livestock if necessary 3.4 Recognise environmental implications associated with livestock husbandry practices and follow relevant procedures 3.5 Follow the regulations and codes of practice appropriate for the industry 3.6 Follow enterprise animal welfare emergency procedures where required
4. Administer drenches, vaccines and prescribed treatments to livestock	4.1 Prepare livestock treatment site and facilities 4.2 Prepare livestock treatments 4.3 Move, yard and control livestock and inspect for treatment requirements 4.4 Use safe work practices with regard to livestock handling 4.5 Administer treatment if required as instructed or under supervision
5. Monitor treated livestock and maintain records	5.1 Monitor livestock post-treatment for signs of treatment effectiveness 5.2 Recognise and report livestock health and condition abnormalities 5.3 Record disease incidence, livestock losses, and treatments 5.4 Report post-treatment information to the supervisor so that prevention strategies can be planned and implemented

Element	Performance criteria
6. Complete work	6.1 Dispose of treatment materials appropriately 6.2 Clean, maintain and store equipment, materials and facilities 6.3 Dispose of livestock residues and waste in an environmentally responsible manner

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK202A Care for health and welfare of livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK202 Care for health and welfare of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- handle livestock safely and humanely
- monitor and assess livestock health and welfare
- select, use and maintain specialised animal health equipment
- prepare treatment site, facilities and equipment
- administer treatments to livestock
- monitor the effectiveness of treatments and report issues
- keep and maintain records
- dispose of unused treatments safely and in an environmentally correct manner
- recognise ill health and abnormal behaviour in livestock
- recognise fear and aggressive behaviour in livestock
- recognise heat stress
- follow enterprise animal welfare emergency procedures
- follow enterprise work health and safety policies
- follow enterprise biosecurity, animal welfare and sustainability policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- water quality and animal requirements
- feed requirements and quality
- workplace biosecurity and euthanasia procedures
- safe handling of sick and dead livestock
- livestock handling principles and livestock behaviour

- signs of heat stress
- symptoms of ill-health in livestock
- the range of common diseases affecting livestock
- vaccination programs
- relevant legislation and regulations relating to waste and environment management, livestock health, stock medicines and animal welfare
- relevant work health and safety legislation, regulations and codes of practice

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK203 Carry out birthing duties

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist animals and their newborn at birthing.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for birthing	1.1 Check animal records and confirm anticipated birthing date where possible 1.2 Check condition and health status of pregnant animal and monitor prior to imminent birthing 1.3 Check birthing equipment, resources and materials and prepare for use 1.4 Give females access to shelter to give birth in during severe weather conditions 1.5 Identify hazards and report to supervisor 1.6 Use safe work practices
2. Assist at the birthing process	2.1 Monitor environment and animals to ensure birth progresses normally 2.2 Check for presence of predators and implement control measures where necessary and report to supervisor 2.3 Handle animals calmly with minimal disruption to the birthing process and in line with enterprise animal welfare policies 2.4 Identify animals experiencing birthing difficulties and intervene as appropriate 2.5 Seek supervisor or veterinary advice if birth complications cannot be resolved
3. Provide post-birthing assistance	3.1 Monitor post-birthing health and bonding of female and newborn 3.2 Maintain birthing environment, facilities and equipment in a safe, hygienic and operational state and report or fix faults 3.3 Keep records of birth

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK203A Carry out birthing duties

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK203 Carry out birthing duties

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- implement predator control strategies
- prepare birthing environment, materials and resources to industry standards
- recognise signs of imminent birthing of animals
- apply contingency measures for birthing in the event of adverse weather conditions
- monitor birthing and provide assistance if required or refer on if birthing difficulties require veterinary assistance
- recognise abnormalities in newborn animals
- provide a non threatening environment and access to adequate feed and water immediately post birthing.
- carry out animal husbandry procedures associated with birthing
- monitor animal condition and recognise abnormal behaviour
- provide due care and handle animals humanely in line with enterprise animal welfare policies
- maintain a safe and secure post-birthing environment
- select birthing equipment and materials and check for operation
- demonstrate safe and environmentally responsible workplace practices
- identify hazards and use safe work practices in the birthing environment
- communicate abnormalities, equipment faults and workplace hazards and report and maintain animal records

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant animal behaviour, basic health and nutritional requirements

- birthing environment requirements for animals
- birthing equipment and materials, their components and functions
- birthing intervention and non-intervention strategies
- effects of adverse weather conditions on birthing process and newborn animals
- effects of inadequate nutrition on animals and newborn
- enterprise policies with regard to treating animals, recording and reporting routines
- environmental impacts and minimisation measures associated with animal production
- hazards associated with handling animals
- relevant livestock gestation and appropriate birthing and husbandry procedures
- personal protective clothing and equipment and when and how it should be used
- problems associated with birthing and remedial treatment
- procedures for cleaning and maintaining treatment equipment and materials
- predator behaviour and control procedures
- relevant State/Territory legislation, regulations and codes of practice with regard to work health and safety and animal welfare.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK204 Carry out regular livestock observation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out regular livestock observation.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work with livestock	1.1 Discuss work to be undertaken with supervisor and seek clarification where necessary 1.2 Discuss tasks with other workers who may be affected to ensure continued smooth operation of the process 1.3 Select and check tools and equipment suitable for the work to be undertaken and maintain if necessary 1.4 Select, use and maintain suitable personal protective equipment in line with work health and safety policies 1.5 Identify hazards and report to supervisor
2. Carry out livestock checks	2.1 Check livestock for signs of illness, injuries and abnormalities and report to supervisor 2.2 Use safe handling techniques while handling livestock 2.3 Carry out all husbandry and handling activities in line with enterprise animal welfare policies
3. Deal with livestock emergencies	3.1 Follow enterprise biosecurity policies where required 3.2 Recognise common signs of livestock injury or life threatening conditions and report to supervisor 3.3 Use basic emergency and livestock first aid procedures until professional help arrives 3.4 Report serious cuts and abrasions to livestock to the supervisor or veterinarian
4. Provide veterinary procedure support	4.1 Treat cuts, abrasions and bruises under instruction from the veterinarian or supervisor 4.2 Examine animals for signs of distress, injury, illness and abnormal behaviours after completing procedures and report to supervisor 4.3 Apply appropriate treatment as instructed by a supervisor or veterinarian

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK204A Carry out regular livestock observation

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK204 Carry out regular livestock observation

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and follow safe operating procedures
- check livestock regularly
- handle livestock safely and humanely
- identify signs of ill health, injury and abnormality
- identify symptoms of ill health or injury
- deal efficiently and calmly with livestock emergencies
- complete basic livestock first aid procedures
- record and report serious issues or injuries.
- follow enterprise work health and safety policies
- follow enterprise animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- range of ailments that may occur or affect livestock
- application of a range of basic treatments under veterinary supervision
- behaviour of the relevant species
- environmental controls and codes of practice applicable to the enterprise
- organisations livestock production and management plans
- relevant work health and safety legislative requirements
- relevant animal welfare and biosecurity legislation and codes of practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK205 Handle livestock using basic techniques

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to safely move, draft and control livestock using basic methods and procedures in an agricultural enterprise.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to handle livestock	1.1 Confirm work plan with supervisor 1.2 Identify, prepare and maintain livestock handling areas, gates and access routes 1.3 Select, check and prepare handling equipment for use and report missing equipment, malfunctions and need for maintenance as required 1.4 Recognise hazards in the workplace and report safety concerns 1.5 Select appropriate personal protective equipment and ensure correct fit
2. Handle livestock	2.1 Locate and identify livestock for handling 2.2 Observe and anticipate behavioural characteristics of livestock and use appropriate handling methods 2.3 Move livestock to designated handling areas and carry out procedures to control, draft and sort livestock with due care and in line with enterprise animal welfare policies 2.4 Carry out restraint procedures safely and with minimum stress and discomfort to livestock and in line with enterprise animal welfare policies 2.5 Monitor and anticipate continually livestock behaviour during moving and drafting processes to ensure wellbeing of livestock and safety of handlers 2.6 Conduct or tally livestock numbers or livestock count of groups/mobs and record or report as required 2.7 Recognise and report environmental implications associated with livestock production
3. Complete handling procedure	3.1 Confirm livestock dispersal plan with supervisor as required 3.2 Prepare gates and access routes for livestock departure 3.3 Move livestock to designated areas safely and with minimal stress 3.4 Ensure adequate clean water and feed at destination as required 3.5 Clean and maintain handling areas and equipment and store surplus materials 3.6 Report handling area maintenance requirements and equipment faults or malfunctions 3.7 Dispose of livestock residues and waste in accordance with environmental practices 3.8 Record and report relevant information

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK205A Handle livestock using basic techniques

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK205 Handle livestock using basic techniques

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare handling areas, gates and access routes for livestock movement
- monitor and anticipate livestock behaviour
- recognise enterprise livestock identification systems
- identify and draft livestock during handling operations
- move and control livestock using low stress livestock handling techniques
- minimise undue stress and risk to livestock and handlers
- recognise livestock abnormalities
- assess, calculate and record livestock numbers
- control the environmental impacts associated with livestock production within the limitations of own responsibility
- follow enterprise work health and safety policies
- follow enterprise animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- livestock behavioural characteristics and movement in handling areas
- components and functions of handling equipment
- handling techniques and restraint methods
- enterprise livestock identification systems
- environmental codes of practice with regard to livestock production
- regulatory controls with regard to handling livestock on public roads where required
- common livestock breeds

- basic nutritional and welfare requirements
- range of common livestock abnormalities, illnesses and injuries and associated signs
- relevant work health and safety requirements
- relevant animal welfare and biosecurity legislation and codes of practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK206 Identify and mark livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out the identification and marking of livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to identify and mark animals	1.1 Select and check appropriate equipment for correct operation, and maintain or replace as required 1.2 Select appropriate materials and ensure adequate quantities for required task 1.3 Identify, clean and prepare suitable marking sites and facilities 1.4 Prepare and ensure adequate quantities of animal preventative health treatments as instructed 1.5 Identify hazards, control risks as appropriate and report to supervisor 1.6 Select, use and maintain suitable personal protective equipment
2. Identify and mark animals	2.1 Muster animals and identify, draft and move young animals to marking site in readiness for identifying and marking 2.2 Carry out animal identifying and marking operations in line with enterprise animal welfare policies 2.3 Carry out contingency plans as instructed in the event of adverse weather conditions 2.4 Identify environmental implications associated with enterprise operations for identifying and marking animals and report to the supervisor
3. Complete identifying and marking operation	3.1 Keep tally or record animal numbers as required during operations and assist to conduct and record animal counts at completion of tasks 3.2 Prepare animals and move along a planned route without damage to person, livestock, property or environment 3.3 Clean, maintain and store equipment, materials and facilities 3.4 Report equipment faults or malfunctions 3.5 Dispose of animal residues and waste appropriately 3.6 Monitor livestock behaviour and wellbeing post-operations, and mother-up young animals if required 3.7 Apply enterprise biosecurity and environmental policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK206A Identify and mark livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK206 Identify and mark livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards, control risks and implement safe operating procedures
- prepare and maintain appropriate identifying and marking sites and facilities to industry standards
- handle animals in a safe and humane manner in line with enterprise and industry animal welfare policies
- operate and maintain equipment
- determine identifying and marking methods
- carry out identifying and marking operations
- monitor animal's behaviour post-marking for health and well-being, mother-up animals and their young if required
- apply contingency measures in the event of adverse weather conditions
- tally, count, calculate and record animal numbers during marking operations if required
- demonstrate safe and environmentally responsible workplace practices
- follow enterprise work health and safety policies
- follow enterprise biosecurity and environmental policies as required

Knowledge Evidence

The candidate must demonstrate knowledge of:

- components and functions of animal handling equipment
- animal marking methods and identification systems
- animal preventative health requirements and procedures
- relevant livestock behaviour
- basic livestock health and nutritional requirements

- environmental codes of practice with regard to animal production
- relevant work health and safety requirements
- relevant animal welfare and biosecurity legislation and codes of practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK207 Load and unload livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to load and unload animals for transport.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Check facilities and equipment for sound working conditions	1.1 Identify facilities and equipment required for the task and confirm with supervisor 1.2 Prepare loading facilities and equipment according to enterprise procedures 1.3 Check the work site, facilities and equipment for hazards and operation, control risks where appropriate and report safety concerns to supervisor 1.4 Carry out or organise repairs and maintenance of facilities and equipment required for loading or unloading livestock where necessary 1.5 Select appropriate personal protective equipment and ensure correct fit
2. Load animals	2.1 Identify, muster, yard or secure animals using safe working methods in line with enterprise animal welfare policies 2.2 Inspect animals for signs of ill health, injury or abnormal behaviours and separate animals unsuitable for transport 2.3 Prepare animals for transport 2.4 Record identification details of animals and fit individual animal tags as required 2.5 Count, record and load livestock safely and with minimal stress to ensure no injury to co-workers or animals in line with enterprise animal welfare policies 2.6 Complete vendor declarations and any other required documentation
3. Unload animals	3.1 Unload livestock in a safe manner to ensure no injury to other workers or animals 3.2 Record numbers and individual identification details of livestock 3.3 Inspect livestock for signs of ill health, injury or abnormal behaviours and report to appropriate persons 3.4 Check documentation and reach agreement on condition of animals with the receiving or dispatching party where required
4. Perform appropriate animal health procedure	4.1 Sort stock, and separate distressed, injured or ill livestock if required 4.2 Undertake animal health treatments off truck if required 4.3 Feed and water animals as instructed 4.4 Apply enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK207A Load and unload livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK207 Load and unload livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- check loading facilities for correct operation and hazards to animals and workers
- sort livestock as required and separate unsuitable animals for transport
- load and unload livestock
- anticipate animal behaviour
- provide and maintain appropriate animal feed and water
- complete relevant documentation and affix individual tags if required
- monitor animal health and welfare
- read and interpret mustering, work and loading plans and maps
- calculate animal numbers to assess and calculate feed and water requirements
- follow relevant work health and safety requirements
- follow relevant biosecurity policies as required
- follow relevant animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- animal handling and movement methods and techniques
- basic animal health and nutritional requirements
- animal herding and flocking behaviour
- techniques and uses of working dogs where appropriate
- types of animal health treatments that may be required
- common diseases and injuries in livestock
- common abnormal livestock behaviours

- causes of livestock being unfit for transport
- legislative documentation requirements for livestock transport
- relevant work health and safety, biosecurity and animal welfare requirements

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK208 Monitor livestock to parturition

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor animal health, wellbeing and welfare to parturition.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Check health status of animals	1.1 Check condition and health status of animals and confirm against enterprise health strategies and records 1.2 Recognise signs of poor health and condition or abnormal behaviour and report to the supervisor for remedial action 1.3 Arrange preventative health treatments and administer as instructed 1.4 Identify hazards and report to supervisor 1.5 Identify environmental implications associated with production and report to the supervisor
2. Identify pregnant animals	2.1 Identify animals and separate on basis of pregnancy status 2.2 Identify dry animals and implement appropriate procedures 2.3 Report additional assistance required for assessing pregnancy status to the supervisor for remedial action
3. Feed pregnant animal	3.1 Identify nutritional needs of pregnant animals and confirm against the feeding plan 3.2 Identify animals with special feeding needs and give them preferential feeding and record 3.3 Implement supplementary feeding as required and record accordingly 3.4 Maintain a safe and secure environment for pregnant animals 3.5 Handle animals with minimum stress and discomfort to the animals without excessive yarding or shedding in line with enterprise animal welfare policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK208A Monitor livestock to parturition

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK208 Monitor livestock to parturition

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and follow safety directions
- observe livestock health and wellbeing from joining
- maintain appropriate nutritional and environmental requirements
- recognise and report abnormalities for remedial action
- provide a safe and secure environment for the promotion of the welfare and wellbeing of pregnant animals through to birthing.
- administer preventative health treatments
- calculate animal numbers, measure feed, assess rate and frequency of feeding, and calculate animal gestation
- communicate orally and in writing, animal behaviour and identified abnormalities
- control environmental impacts associated with animal production
- handle pregnant animals with due care
- observe and accurately report animal behaviour
- observe local climatic conditions
- follow relevant work health and safety requirements
- follow relevant animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- effects of adverse weather conditions and inadequate nutrition on pregnant animals and their newborn
- effect of local climatic conditions on the timing of shearing, separating and transporting pregnant animals

- environment codes of practice with regard to animal production
- correct livestock handling techniques for dry and pregnant animals
- health and nutritional requirements for pregnant animals
- housing requirements for intensively produced animals
- livestock identification methods
- pregnant animals behaviour and abnormalities
- pregnancy checking and confirmation procedures (including scanning)
- health treatments, procedures and methods to livestock when required
- relevant work health and safety requirements
- relevant animal welfare and biosecurity legislation and codes of practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK209 Monitor water supplies

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor the supply of potable water for livestock from water storages and sources.

All work must be carried out to comply with workplace procedures, work health and safety, legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor water supplies	1.1 Inspect water supplies routinely

Element	Performance criteria
	1.2 Recognise high and low water levels and report to supervisor 1.3 Treat water quality problems or pathogens when found 1.4 Record and report information on water supplies
2. Inspect and clear intake and outlet points	2.1 Inspect intakes and outlets 2.2 Report potential blockages and clear actual blockages 2.3 Check and replace water filters as required 2.4 Reposition intake lines as necessary to ensure unobstructed suction 2.5 Clear strainers of debris and sludge
3. Operate water delivery equipment	3.1 Identify hazards and risks and report to supervisor 3.2 Prepare and check water delivery equipment 3.3 Operate water delivery equipment 3.4 Check outflow to ensure water delivery equipment is operating correctly 3.5 Shut down water delivery equipment as required 3.6 Report on activities and water delivery equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK209A Monitor water supplies

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK209 Monitor water supplies

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and follow safety procedures
- record and report water supply information, activities and system performance
- read and follow manufacturers procedures
- problem solve to identify potential as well as actual blockages
- undertake basic poly pipe repairs
- check outflow rates
- record and report water supply information, activities and system performance
- read and follow manufacturers procedures
- identify blockages and clear them using safe working procedures
- check flow rates
- inspect and report on water supplies with only routine supervision
- follow work health and safety requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- water delivery systems and components and their operation
- enterprise procedures for carrying out inspections, recording and reporting water information and system performance
- environmental impacts and procedures for water supplies
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK210 Muster and move livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to muster and move livestock as part of a team.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for muster	1.1 Identify mustering requirements and confirm with supervisor 1.2 Arrange transport requirements and check and confirm for operation 1.3 Identify and access additional information relevant to livestock movements 1.4 Identify hazards and safety concerns and report to the supervisor 1.5 Select and use personal protective equipment
2. Carry out muster	2.1 Locate livestock identified in the muster plan and aggregate in preparation for movement 2.2 Carry out muster processes in line with enterprise animal welfare policies
3. Move livestock	3.1 Carry out livestock movement with minimal stress to livestock and without damage to person, property or environment 3.2 Monitor and maintain livestock welfare during movement with adequate provision of rest, water and feeding points 3.3 Confine and pasture livestock at destination 3.4 Count and record numbers of livestock 3.5 Follow enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK210A Muster and move livestock

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK210 Muster and move livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and follow safe work procedures
- read and interpret muster plans and maps
- prepare equipment and working dogs (when used) for handling livestock
- implement directions for mustering
- monitor livestock behaviour and recognise abnormalities
- muster and move livestock along prepared routes in a calm and controlled manner
- handle livestock safely and humanely, monitor welfare of mustered stock
- monitor and minimise impacts to the environment
- communicate effectively with the muster team
- calculate livestock numbers and assess and calculate feed and water requirements
- follow relevant work health and safety requirements
- follow relevant biosecurity requirements where required
- follow relevant animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- mustering and movement methods and techniques
- livestock basic health and nutritional requirements
- livestock herding/flocking behaviour
- environmental codes of practice with regard to livestock production
- working dogs uses and techniques (where appropriate)
- legislative requirements for stock movement along public roads

- environmental impacts and procedures for livestock movements and musters
- relevant work health and safety requirements
- relevant animal welfare and biosecurity legislation and codes of practice

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK211 Provide feed for livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and provide feed for livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for feeding	1.1 Check and record condition and health status of livestock 1.2 Confirm feed and feed supplements and prepare in line with feeding plan 1.3 Check and maintain water supply, quality and quantity to meet livestock requirements 1.4 Identify hazards and report to the supervisor 1.5 Select and use suitable personal protective clothing and equipment
2. Feed livestock	2.1 Provide feed and feed supplements in line with feeding plan 2.2 Monitor feeding process to ensure livestock are feeding effectively 2.3 Safely handle livestock in line with enterprise animal welfare policies 2.4 Follow procedures to minimise feed wastage and spillage, and dispose of and recycle feed waste appropriately 2.5 Note variations to individual eating and drinking patterns and report
3. Complete the feeding process	3.1 Record feeding abnormalities and report to the supervisor 3.2 Maintain a clean and safe working area 3.3 Maintain records 3.4 Follow enterprise biosecurity policies where required

Foundation Skills

This unit is equivalent to AHCLSK211A Provide feed for livestock

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK211A Provide feed for livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK211 Provide feed for livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- monitor and record livestock condition
- provide feed and feed supplements in accordance with feeding plan
- monitor livestock health and condition, and recognise abnormalities
- employ safe and environmentally responsible systems and procedures with regard to the handling of livestock and feed
- read and interpret feeding plan, work plan and supervisors instructions
- communicate and report livestock feeding abnormalities and workplace hazards, and maintain livestock records
- assess and calculate herd/flock numbers, measure feed and rate and frequency of feeding
- safely handle livestock in line with enterprise animal welfare policies
- report feeding abnormalities and maintain records
- follow relevant work health and safety requirements
- follow relevant biosecurity requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- nutritional requirements for livestock (including water)
- types of feed and feed supplements (including pastures and grazing)
- types of noxious and toxic plants relevant to feeding areas
- livestock health and behaviour
- livestock scoring and weighing methods

- environmental impact of livestock
- safe livestock handling techniques and procedures
- hazards associated with handling livestock and control measures
- personal protective clothing and equipment
- relevant work health and safety requirements
- relevant animal welfare and biosecurity legislation and codes of practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK213 Clean out production sheds

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to clean out sheds used for the production of livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to clean shed	1.1 Confirm work to be undertaken with supervisor

Element	Performance criteria
	1.2 Identify work health and safety hazards and seek advice from supervisor for implementation of suitable risk controls 1.3 Select, maintain and use suitable personal protective equipment 1.4 Identify the potential environmental and biosecurity impacts of cleaning the shed and seek advice from supervisor for managing these impacts 1.5 Raise, dismantle or remove equipment from the shed for cleaning and clean equipment to appropriate industry standards 1.6 Cover or seal electrical switchboards and other equipment to prevent entry of water if appropriate
2. Clean shed and surrounds	2.1 Service and prepare machinery for cleaning operation 2.2 Remove and dispose of litter where these are used 2.3 Remove and dispose of manure appropriately 2.4 Remove dust and cobwebs from all surfaces 2.5 Service filters and flush drinker lines and tanks 2.6 Empty and clean silos where appropriate 2.7 Prepare and use cleaning agents in line with safe working procedures 2.8 Air shed to completely remove traces or vapours of the cleaning agent prior to re-entry of staff and re-installation of equipment 2.9 Handle chemical agents safely and use in accordance with relevant work health and safety and industry practices 2.10 Dry clean electrical equipment 2.11 Ensure run-off from cleaning activity complies with enterprise, industry and regulatory effluent and waste management procedures 2.12 Ensure all cleaning and hygiene processes are completed to industry standards
3. Complete cleaning operation	3.1 Clean and store equipment appropriately at end of operation 3.2 Dispose of containers, leftover fluids, waste and debris from the cleaning operations appropriately 3.3 Complete records and documentation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK213A Clean out production sheds

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK213 Clean out production sheds

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify work health and safety hazards, follow safe work practices and use personal protective equipment appropriately
- make appropriate preparations for cleaning out shed
- clean shed and surrounds
- complete cleaning operation
- complete records
- follow relevant environmental and biosecurity practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of sheds and equipment found in sheds
- methods to handle and transport equipment found in sheds
- methods of sealing or covering shed equipment to prevent entry of water
- methods for dry cleaning electrical equipment
- environmental and biosecurity impacts of shed cleaning operation, and measures to mitigate these impacts
- equipment and machinery used for shed cleaning operation, and the maintenance, servicing and storage of such equipment and machinery
- environmental and biosecurity impacts and methods of disposal of effluent, bio-waste and waste generated by the cleaning operation
- cleaning, maintenance and servicing of filters, drinker lines, tanks and silos
- types, handling, use and disposal of cleaning agents, work health and safety and environmental practices for these agents

- types of documentation and records that need to be completed after the cleaning operations
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK214 Maintain production growing environments

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain growing environments for livestock under production.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Maintain environment systems	1.1 Carry out biosecurity procedures, including access to sheds and boot washing 1.2 Carry out maintenance work according to enterprise work health and safety standards for hazards identification, risk assessment and risk control measures 1.3 Carry out shed heating, cooling and ventilation systems maintenance 1.4 Check litter and manure conditions and report changes 1.5 Maintain lighting programs specified for the production unit and report variations 1.6 Clean light globes regularly and report malfunctions 1.7 Check feed program is working according to enterprise procedures and report malfunctions 1.8 Check feeding times and feed rate when restricted feeding is practised and report malfunctions 1.9 Carry out maintenance work as necessary 1.10 Check waterers in sheds and report malfunctions
2. Observe and assess livestock health	2.1 Check livestock regularly 2.2 Recognise and report ill health of livestock 2.3 Carry out disease prevention strategies appropriate to the unit as instructed and in line with biosecurity codes
3. Handle livestock	3.1 Handle livestock in accordance with animal welfare requirements and codes of practice 3.2 Count and identify livestock 3.3 Recognise and identify injured, malformed or non-productive livestock, and report to enterprise or supervisor 3.4 Treat livestock under direction of the unit supervisor, and report the effects of treatment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK214A Maintain production growing environments

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK214 Maintain production growing environments

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify work health and safety hazards and follow safe work practices
- follow relevant biosecurity practices
- maintain environment systems
- observe and assess livestock health
- follow relevant animal welfare practices when handling or treating livestock

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant biosecurity requirements
- relevant animal welfare requirements
- relevant work health and safety requirements and sustainability practices
- shed heating, cooling and ventilations systems, their functions, maintenance and servicing, and impact of changes on livestock
- types of litter, functions and impact of litter changes on livestock
- impact of manure conditions on livestock
- lighting programs and impact of variations in lighting programs on livestock
- types of lighting, functions, maintenance and servicing
- feeding programs and impact of changes and malfunctions on livestock
- restricted feeding and impact of changes and malfunctions on livestock
- watering systems, functions, maintenance and servicing, and the impact of changes and malfunctions on livestock
- types of maintenance work that need to be carried out in a livestock production unit

- signs of health, anatomy, physiology and behaviour of the livestock species
- signs of ill health in the livestock species
- signs of injury, malformation and non-productiveness in livestock
- types of disease prevention strategies and their functions
- methods for handling livestock
- methods for counting and identifying livestock
- types of treatment in livestock and assessment of treatment effectiveness

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK215 Carry out alpaca handling and husbandry operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to move and control alpacas using basic handling methods and procedures.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Prepare to handle alpacas	1.1 Identify, prepare and maintain alpaca handling areas, gates and access routes 1.2 Locate and identify alpacas for handling according to supervisor instructions 1.3 Observe and anticipate behavioural characteristics of alpacas and select appropriate handling methods 1.4 Select, check for soundness and prepare handling equipment 1.5 Identify hazards and report to supervisor 1.6 Recognise hazards to animals and report to supervisor 1.7 Observe site quarantine and other biosecurity protocols 1.8 Select and use suitable personal protective equipment
2. Handle alpacas	2.1 Follow procedures to control and sort alpacas safely and in line with enterprise animal welfare policies 2.2 Classify alpacas according to age, sex and husbandry tasks to be performed 2.3 Carry out restraint procedures with minimum stress and discomfort to alpacas 2.4 Transport alpacas when required according to animal welfare requirements 2.5 Monitor and anticipate alpaca behaviour during moving and handling processes to ensure wellbeing of alpacas and safety of handlers 2.6 Conduct alpaca count record 2.7 Recognise environmental impacts of alpaca handling and husbandry tasks and report to supervisor
3. Carry out alpaca husbandry tasks	3.1 Carry out alpaca husbandry safely and in line with enterprise animal welfare policies 3.2 Identify unhealthy stock and abnormal conditions and behaviour and report 3.3 Provide adequate feed and clean water to stock 3.4 Recognise plants poisonous to alpacas and report to supervisor
4. Complete alpaca handling activities	4.1 Complete alpaca husbandry tasks as instructed, and prepare gates and access routes for alpacas' departure 4.2 Clean and maintain handling areas and equipment and store surplus materials 4.3 Report equipment faults or malfunctions

Element	Performance criteria
	4.4 Dispose of alpaca residues and waste appropriately 4.5 Record and report relevant information about particular animals and the husbandry tasks performed

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK215A Carry out alpaca handling and husbandry operations

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK215 Carry out alpaca handling and husbandry operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and apply safe work practices
- assess and calculate alpaca numbers
- prepare handling areas, gates and access routes for alpaca movement
- monitor and anticipate alpaca behaviour in handling operations
- identify, sort, move and control alpacas for handling and husbandry operations
- use correct equipment, and calming and humane methods to minimise undue stress and risk to alpacas or handlers
- carry out typical basic alpaca husbandry tasks
- recognise and report signs of unusual behaviour, unhealthy animals or abnormal conditions
- control environmental impacts associated with alpaca handling and husbandry
- feed and provide adequate clean water to alpacas
- identify a range of plants poisonous to alpacas
- provide due care in the handling of alpacas
- read and comprehend oral and written information and instructions and maintaining alpaca handling records
- use enterprise alpaca identification systems
- follow relevant work health and safety requirements
- follow relevant biosecurity requirements
- follow relevant animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- alpaca behavioural characteristics and movement in handling areas
- classes of alpacas and their basic nutritional and welfare requirements
- components and functions of handling equipment
- enterprise identification systems for alpacas
- environmental codes of practice with regard to alpaca production
- correct handling techniques and restraint methods
- alpaca husbandry procedures and why they are carried out
- regulatory controls relating to the transport of animals on public roads
- relevant work health and safety requirements
- relevant animal welfare and biosecurity legislation and codes of practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK216 Clean and maintain livestock pens

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to clean and maintain livestock pens.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to clean pens	1.1 Confirm work to be undertaken with supervisor 1.2 Identify work health and safety hazards and seek advice from supervisor for implementation of suitable risk controls 1.3 Select, maintain and use suitable personal protective equipment 1.4 Identify the potential environmental and biosecurity impacts of cleaning the pens and seek advice from supervisor for managing these impacts 1.5 Raise, dismantle or remove equipment from the pens for cleaning if required and clean equipment to appropriate industry standards
2. Clean pens	2.1 Service and prepare machinery and tools for cleaning operation 2.2 Remove and dispose of manure appropriately 2.3 Clean feeding and watering troughs or equipment appropriately 2.4 Ensure run-off from cleaning activity complies with enterprise, industry and regulatory effluent and waste management procedures 2.5 Ensure all cleaning and hygiene processes are completed to industry standards
3. Maintain pens	3.1 Repack worn and uneven pen surface appropriately 3.2 Repair damaged feed bunks and leaking water troughs as required 3.3 Repair pen fences, gates and shade structures as required
4. Complete cleaning and maintenance operation	4.1 Clean and store equipment appropriately at end of operation 4.2 Dispose of containers, leftover fluids, waste and debris from the cleaning operations appropriately 4.3 Complete records and documentation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK216 Clean and maintain livestock pens

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify work health and safety hazards, follow safe work practices and use personal protective equipment appropriately
- make appropriate preparations for cleaning livestock pens
- clean and maintain pens
- complete cleaning and maintenance operation
- follow relevant environmental and biosecurity practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- requirements and methods of cleaning livestock pens
- environmental and biosecurity impacts of pen cleaning operation and measures to mitigate these impacts
- types and use of tools, equipment and machinery for pen cleaning operation and the maintenance, servicing and storage of such tools, equipment and machinery
- environmental and biosecurity impacts and methods of disposal of effluent, bio-waste and waste generated by the cleaning operation
- cleaning and maintenance of feeding and watering troughs or similar equipment
- types of documentation and records that need to be completed after the cleaning operations
- relevant work health and safety, biosecurity and environmental management policies

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK217 Apply animal welfare principles to handling and husbandry of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to apply animal welfare principles to the handling and husbandry of animals to ensure their welfare.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify animal welfare requirements	1.1 Identify legislative, regulatory and industry animal welfare requirements 1.2 Identify the principles of animal welfare
2. Comply with animal welfare requirements	2.1 Follow enterprise work health and safety policies 2.2 Carry out animal handling and husbandry activities in compliance with relevant animal welfare codes of practice and workplace requirements 2.3 Recognise animal welfare issues in the workplace and report to supervisor or management 2.4 Take appropriate corrective action as instructed by supervisor 2.5 Complete appropriate record keeping of workplace animal welfare concerns and actions taken as required
3. Participate in animal welfare process	3.1 Participate in workplace or industry animal welfare induction programs and training 3.2 Participate in workplace or industry animal welfare emergency training

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK217 Apply animal welfare principles to handling and husbandry of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow enterprise work health and safety policies
- identify animal welfare requirements in relevant legislation, regulations, codes of practice and workplace procedures
- apply animal welfare principles to animal handling and husbandry activities in compliance with relevant animal welfare codes of practice and workplace requirements
- recognise and report animal welfare issues to supervisor
- participate in workplace or industry animal welfare emergency training

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant animal welfare legislation, regulations and codes of practice
- basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice
- workplace or industry animal welfare procedures and animal emergency procedures
- workplace or industry procedures for reporting and recording animal welfare concerns, non-conformance and malpractice in the workplace
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK301 Administer medication to livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to apply preventative health treatments and other medications to livestock under professional supervision.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare for treatment of livestock	1.1 Select equipment and materials and check for safe and sound operation and confirmed against work plan 1.2 Prepare livestock treatment site and facilities 1.3 Prepare livestock treatments 1.4 Identify hazards, assess risk and implement risk controls
2. Treat livestock	2.1 Muster livestock and yard, control, inspect and identify for treatment in line with enterprise requirements and animal welfare policies 2.2 Use low risk operating procedures with regard to livestock handling 2.3 Calculate dose rates and calibrate equipment 2.4 Administer treatment 2.5 Identify and minimise environmental impacts 2.6 Minimise risks of resistance to veterinary medicines and chemicals
3. Complete treatment process	3.1 Prepare livestock and move along planned route without damage to person, property or environment 3.2 Clean, maintain and store equipment, materials and facilities used for treatments 3.3 Dispose of livestock residues and waste appropriately
4. Monitor effectiveness of treatment	4.1 Monitor livestock post-treatment for signs of treatment effectiveness 4.2 Recognise abnormalities in livestock health and condition and treat appropriately 4.3 Record livestock treatment process and outcomes including withholding periods 4.4 Apply enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK301A Administer medication to livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK301 Administer medication to livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work practices
- prepare, clean and maintain treatment site, facilities and equipment to industry standards
- select and utilise equipment and materials appropriate for treating requirements and match to work tasks
- muster, move and handle livestock for health treatments
- administer preventative health treatments in accordance with work plan
- monitor effectiveness of treatments and provide follow up if required
- maintain records of treatments
- assess and calculate herd/flock numbers, measure dosage and quantities
- monitor livestock behaviour and recognise abnormalities
- apply contingency measures for administering treatments in the event of adverse weather conditions
- carry out animal husbandry procedures
- provide due care and handle livestock humanely
- communicate abnormalities, equipment faults and workplace hazards
- read and interpret manufacturers specifications, work and maintenance plans, veterinary chemical labels and Safety Data Sheets (SDS's)
- apply relevant work health and safety requirements
- apply relevant biosecurity requirements
- apply relevant animal welfare practices
- apply relevant environmental sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- equipment and materials for treating livestock, their components and functions
- livestock health treatments, procedures and methods
- livestock identification methods
- mustering and moving techniques
- withholding periods for residues in meat, milk or wool
- technique of disposing of livestock residues and waste appropriately
- hazards associated with handling livestock and veterinarian medicines and chemicals
- implications and management of veterinary medicine and/or chemical resistance
- personal protective clothing and equipment and when and how it should be used and maintained
- procedures for cleaning and maintaining treatment equipment and materials
- enterprise policies with regard to treating livestock, recording and reporting routines
- relevant State/Territory legislation, regulations and codes of practice with regard to work health and safety, animal welfare, biosecurity and the use and control of hazardous substances

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK302 Mate and monitor reproduction of alpacas

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to mate and monitor the reproduction of alpacas.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare animals for mating	1.1 Select male and female animals to be mated from the stud's mating plan 1.2 Determine condition of animals selected for mating and record body scores are recorded to comply with recognised industry practices 1.3 Adjust nutritional program where required and monitor to produce optimum condition for mating 1.4 Make preparations where females are over-fleeced to ensure that tail and vulva area are clean and free of fleece 1.5 Check animals for signs of infection or other reason not to proceed with the planned mating and take remedial action as appropriate
2. Facilitate mating	2.1 Identify receptive females 2.2 Ensure paddock or pen mating areas are secure and provide access for handlers during joining 2.3 Use mating procedures and handling techniques that minimise stress and discomfort to animals and meet work health and safety and animal welfare requirements 2.4 Supervise pen mating and intervene when required to maximise conception rates
3. Complete mating procedures	3.1 Undertake or commission pregnancy at earliest opportunity to identify pregnancy status of animals and take suitable action as required 3.2 Record of mating details

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK302A Mate and monitor reproduction of alpacas

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK302 Mate and monitor reproduction of alpacas

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implementing safe operating procedures
- accurately score alpaca condition
- assist with ultrasonography and blood collection if requested by professional service providers
- clean up work site and safely dispose of waste
- monitor the condition of female and male alpacas
- recognise ovulation and detect oestrus in females
- supervise alpaca mating and assisting as appropriate
- conduct a spit off
- conduct and commission pregnancy tests
- identify and implement action required as a result of pregnancy tests
- communicate effectively with other team members and veterinarians
- apply relevant work health and safety requirements
- apply relevant biosecurity policies requirements
- apply relevant animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- alpaca handling and assisted joining techniques
- alpaca health and abnormalities
- alpaca movement and behavioural characteristics
- enterprise and industry identification system for alpaca

- enterprise and industry policies regarding recording and reporting routines for matings
- management of female and male body conditions core through nutrition programs
- Johne's disease status mating procedures
- mobile mating procedures
- relevant Personal Protective Equipment (PPE) and when and how it should be used
- pregnancy testing techniques, including detection of ovulation
- state and territory animal welfare legislation and codes of practice
- relevant state and territory legislation, regulations and codes of practice with regard to work health and safety and biosecurity

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK303 Carry out feedlot operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out feedlot operations

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to corporate, small scale or opportunity lot feeding of cattle, sheep and goats.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work with livestock feed	1.1 Check work to be undertaken from work program and confirm with supervisor where necessary. 1.2 Identify work health and safety hazards, assess risks and apply suitable control measures 1.3 Select, use and maintain suitable personal protective equipment 1.4 Select, check and maintain tools and equipment suitable for the work to be undertaken 1.5 Identify environmental impacts of undertaking work, assess likely outcomes and, if necessary, take responsible action
2. Mix feed	2.1 Calibrate scales and containers to be used for measurements 2.2 Identify ingredients from instructions and obtain from storage locations 2.3 Measure ingredients in the specified ratios and quantities 2.4 Blend ingredients adequately and hygienically in the manner specified using appropriate equipment 2.5 Carry out grinding, where required, in the manner specified and using appropriate equipment
3. Feed livestock	3.1 Store feed appropriately 3.2 Check the physical quality, quantity and type of feed on their arrival to the shed 3.3 Feed livestock at scheduled time, rate and frequency 3.4 Maintain quality and hygiene of feed throughout the feeding process
4. Apply and maintain feedlot hygiene and biosecurity procedures	4.1 Examine livestock entering feedlot, check their documentation and quarantine them for specified period 4.2 Maintain cleanliness and hygiene by selecting and using appropriate cleaning methods 4.3 Maintain thorough personal hygiene practices in all activities associated with handling livestock, including reducing risks from diseases transmissible to humans (zoonotic diseases) 4.4 Dismantle and clean equipment and fittings and replace correctly 4.5 Place and dispose of waste and debris in allocated areas, and ensure run-off is managed according to the Feedlot Code of Practice, environmental legislation and public health standards 4.6 Check and sign in visitors to feedlot according to enterprise and industry procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK303A Carry out feedlot operations.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK303 Carry out feedlot operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply relevant work health and safety requirements, identify hazards and implement safe work procedures
- prepare equipment and machinery mixing feed
- identify a range of grain and feed types and qualities
- mix livestock feed
- feed livestock
- follow relevant procedures for the safe and environmentally responsible disposal of waste
- apply and maintain relevant feedlot hygiene and biosecurity procedures
- apply relevant animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant work health and safety requirements
- relevant biosecurity requirements
- relevant animal welfare practices
- tools and equipment used for working with livestock feed, their functions and maintenance
- environmental impacts of working with livestock feed and mitigation methods
- measurement systems for livestock feed, and calibration and maintenance of measuring equipment
- types of grains and feed ingredients (grains, meals, vitamins, minerals and premix formulations) used for feeding livestock, their functions, characteristics and quality assessment methods

- methods and equipment for blending and grinding of feed
- methods of storage and handling of livestock feed and impact of feed quality changes on livestock
- livestock feeding programs and impact of program changes or variations on livestock
- impact of biosecurity practices on livestock in a feedlot
- cleaning methods, cleaning agents, their proper use and disposal, and relevant Work Health and Safety practices
- common zoonoses and their impacts on human and livestock health
- management and disposal of waste, debris and run-offs according to relevant biosecurity and environmental regulations, codes of practice, industry and enterprise standards
- management of and biosecurity requirements for visitors to the feedlot

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK304 Carry out post-mortem examination of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out post-mortem examination of livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities, work in a range of known contexts and use discretion and judgement in the selection and use of available resources

Individuals must comply with national and local regulations for disposal of the carcass.

Individuals must comply with regulations for sending of biological samples by post.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to conduct post-mortem / necropsy	1.1 Select site for post-mortem, ensuring compliance with biosecurity and environmental requirements 1.2 Prepare the site to be used for the post-mortem 1.3 Obtain and collate all relevant preliminary information about the carcass to be examined 1.4 Identify work health and safety and biosecurity hazards, assess risks and take appropriate action 1.5 Select and use personal protective equipment 1.6 Obtain and prepare required equipment and resources 1.7 Move the animal to be examined to the post mortem area using appropriate manual lifting techniques and equipment 1.8 Seek expert assistance if required
2. Carry out post-mortem examination	2.1 Carry out external assessment and note outward signs of disease or injury 2.2 Seek expert advice and assistance before proceeding where unusual symptoms are present 2.3 Perform post mortem of the carcass in a systematic and safe manner using appropriate techniques and equipment, without causing artificial damage to organs and tissues 2.4 Examine organs, tissues and joints 2.5 Take samples of organs and tissues where appropriate, and place in properly labelled containers to meet laboratory requirements 2.6 Record relevant data and details of the post mortem examination and suggest the cause of death where possible
3. Carry out post necropsy procedures	3.1 Dispose of carcass and biological materials using appropriate equipment and comply with biosecurity and environmental requirements, and national and local regulations for carcass disposal 3.2 Send labelled and packaged samples to the laboratory for analysis and comply with regulations for sending biological samples by post 3.3 Collate all information about the livestock examined and the records made during the post-mortem, and forward to supervisor or veterinarian for analysis and establishing a diagnosis 3.4 Clean and disinfect all equipment used and store appropriately 3.5 Clean and disinfect site used for the post-mortem 3.6 Disinfect disposable personal protective equipment before disposing them 3.7 Wash hands and exposed body areas thoroughly 3.8 Change clothing and place in appropriate bin for laundering and disinfect boots

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK304A Carry out post-mortem examination of livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK304 Carry out post-mortem examination of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for post mortem, ensuring appropriate handling and use of equipment, personal protective equipment and disinfectants
- identify work health and safety and biosecurity hazards and implement risk controls
- handle carcasses safely and appropriately
- perform external examination and post mortem examination of carcass
- dispose of carcass appropriately
- carry out post necropsy procedures of cleaning and disinfection of equipment, post mortem site and personal protective equipment
- prepare biological samples for sending to the laboratory where appropriate
- carry out procedures for personal hygiene
- apply relevant work health safety environmental and biosecurity requirements and practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- sequence of actions in conducting a post mortem examination
- appropriate handling and use of post mortem equipment, personal protective equipment and disinfectants
- requirements for correct preparation, labelling and packaging of biological samples
- anatomy and physical features of the species being examined
- common causes of death for the species being examined
- typical signs of pathology in major organs
- typical symptoms and clinical signs of notifiable diseases in the relevant species

-
- relevant work health and safety environmental and biosecurity requirements, and carcass disposal regulations

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessments for the following performance evidence must be conducted on a livestock carcass:

- carry out post mortem examination

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK305 Maintain livestock water supplies

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain livestock water supplies.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify maintenance requirements	1.1 Check livestock water supplies for quality and inspect for signs of contamination or deterioration, and low or interrupted supply

Element	Performance criteria
	1.2 Check components of water supply systems for wear, deterioration or malfunctions 1.3 Check and confirm Identified maintenance requirements according to the maintenance plan
2. Prepare for maintenance	2.1 Select tools, equipment and materials appropriate to the job requirements and check for serviceability 2.2 Identify faulty or unsafe tools and segregate for repair or replacement 2.3 Identify hazards, assess risks and implement control measures 2.4 Select and use personal protective equipment
3. Carry out maintenance procedures	3.1 Maintain water systems and equipment to manufacturers specifications, livestock requirements and maintenance plan 3.2 Carry out maintenance and repair of motors where necessary, including fault finding 3.3 Report more complex faults and repair requirements to the supervisor
4. Complete maintenance activities	4.1 Clean worksite, tools and materials, return to operating order and store 4.2 Report malfunctions, faults, and wear or damage to tools for repair or replacement 4.3 Collect, treat and dispose of or recycle unwanted materials and waste from maintenance activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK305A Maintain livestock water supplies

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK305 Maintain livestock water supplies

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- estimate water requirements based on average and peak demand for water
- test and monitor machinery and equipment for correct operation and recognise minor faults and report major faults
- identify the components of a range of water supply systems
- arrange water supply system components and materials
- use hand and power tools safely
- carry out routine servicing and minor repairs on a range of water supply systems and equipment
- work as part of a contract team as required
- demonstrate safe and positive environmental working practices
- test water quality as directed
- read and interpret a water supply plan
- measure and calculate lubrication requirements
- apply relevant work health and safety requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- livestock requirements and average and peak demand for water
- operational principles of various pumps and pumping systems
- functions and components of a range of water supply systems
- operation and maintenance of diesel and petrol engines

- factors which affect water quality, various water contaminants and remedial action
- advantages and disadvantages of different types of water supply systems
- State and Territory work health and safety legislative requirements relevant to the job role
- relevant legislative requirements with regard to property water supply systems
- environmental code of practices associated with maintenance activities.

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK306 Coordinate and monitor production performance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate resources and monitor the work of others within an intensive production process.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work, including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work in the	1.1 Confirm work to be undertaken from work program where

Element	Performance criteria
production area	<p>necessary, and clarify with supervisor if required</p> <p>1.2 Identify hazards, assess risks and implement suitable controls</p> <p>1.3 Select and use suitable personal protective equipment</p> <p>1.4 Select, check and maintain tools and equipment suitable for the work to be undertaken</p> <p>1.5 Communicate the personal protective equipment and other safety requirements to staff and contractors, and obtain confirmation of understanding</p>
2. Coordinate work activities	<p>2.1 Communicate the work required to staff and contractors clearly and unambiguously following the production plan and program</p> <p>2.2 Meet work schedules, plans and priorities according to the needs of the organisation or situation</p> <p>2.3 Ensure the allocation of work optimises resources and the existing competencies of staff</p> <p>2.4 Provide feedback to staff and management on request, or as necessary</p>
3. Monitor daily operations	<p>3.1 Assess manure and litter consistency and treat to prevent deterioration, where appropriate</p> <p>3.2 Implement the designated lighting and internal environment programs for the unit</p> <p>3.3 Check that effluent storage and disposal systems are operated according to the production program and manufacturer's instructions</p> <p>3.4 Ensure that all rubbish and used consumables are removed from production site according to the requirements of the production program</p> <p>3.5 Ensure work, health and safety requirements are being observed and followed</p> <p>3.6 Communicate with operational staff and any contractors regularly to ensure smooth operation and progress</p>
4. Monitor herd/flock health	<p>4.1 Observe herd/flock and shed conditions for signs of ill health, and record and report changes</p> <p>4.2 Examine livestock for evidence of disease through post-mortem techniques in line with individual unit standard and veterinary advice</p> <p>4.3 Identify disease status of unit stock and request serviceman or veterinary assistance when required</p> <p>4.4 Check components of quarantine/ biosecurity procedures for compliance</p> <p>4.5 Comply with enterprise animal welfare policies</p>

Element	Performance criteria
5. Complete records and documentation	5.1 Collate information gathered throughout production operations 5.2 Graph collated information where required, and prepare for presentation to supervisor or manager ensuring easy recognition and extraction of data

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK306A Coordinate and monitor production performance

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK306 Coordinate and monitor production performance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- maintain biosecurity procedures and report concerns immediately
- read and interpret cost sheets, production information, target statistics, quantities of feed and other inputs
- read and interpret production and other information in a manner that is readily accessible for both management and operators
- monitor shed temperature and adjust as required
- read and interpret spreadsheet information using a software package
- discuss production performance, risk and hazard potential, quality of output, and methods of production with both management and operators
- read and interpret the activities contained in livestock production plans
- observe, identify and react appropriately to work health and safety hazards and environment risks
- recognise when performance standards are not met and investigate and report findings in written form
- provide supervision of staff including allocating duties and feedback on performance
- read and interpret cost sheets, production information, target statistics, quantities of feed and other inputs
- prepare and present production and other information in a manner that is readily accessible for both management and operators
- apply relevant animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

-
- biosecurity procedures and codes of practice
 - common livestock diseases and clinical signs
 - relevant industry, environmental and quality standards (including ISO9002:1094)
 - animal welfare codes of practice and procedures
 - types of sheds and equipment
 - raw data to determine issues and problems
 - recording and reporting requirements
 - fundamentals of quarantine and control methods
 - common feed ingredients and additives
 - water reticulation systems and quality
 - State and Territory work health and safety legislation and codes of practice relevant to the sector

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK307 Euthanase livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to euthanase livestock without distress or suffering prior to cessation of their vital life functions.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities, work in a range of known contexts and use discretion and judgement in the selection and use of available resources.

Individuals must hold firearms licenses if they are using firearms to euthanase livestock.

Individuals must comply with national and local regulations for disposal of the carcass.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare for euthanasia	1.1 Confirm criteria for decision to destroy livestock conforms to workplace procedures and approval of supervisor where required 1.2 Confirm the method selected to destroy livestock is suitable for the species and meets animal welfare requirements, as outlined in the relevant codes of practice 1.3 Prepare equipment and materials required to complete the euthanasia 1.4 Identify hazards, assess risks and implement control measures 1.5 Identify environmental and public safety risks associated with the euthanasia 1.6 Obtain licences and permits required to complete euthanasia where necessary 1.7 Check and prepare equipment and materials for euthanasia 1.8 Select and use personal protective equipment
2. Carry out euthanasia of animal	2.1 Handle and transport equipment appropriately and safely 2.2 Restrain animal in a way that minimises pain and distress 2.3 Euthanase animal in a quick and painless way 2.4 Check animal to ensure it is dead 2.5 Destroy animals that have not been euthanased immediately, in a humane manner
3. Carry out post euthanasia procedures	3.1 Handle and prepare carcass to be used for research or commercial according to enterprise requirements 3.2 Dispose of carcass not to be used for research or commercial purposes in line with legislative and enterprise requirements 3.3 Clean and store equipment and materials 3.4 Report and record animal and euthanasia details as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK307A Euthanase livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK307 Euthanase livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply relevant animal welfare requirements
- implement relevant work health and safety practices
- implement relevant biosecurity requirements
- prepare for euthanasia
- carry out euthanasia of animal
- confirm signs of death in the euthanased animal
- handle, prepare or dispose of carcass in line with workplace procedures, national and local regulations
- clean and store equipment and materials
- record details of the euthanasia

Knowledge Evidence

The candidate must demonstrate knowledge of:

- their responsibilities with regard to animal welfare as outlined in the relevant animal welfare codes of practice
- relevant work health and safety and biosecurity requirements, explain the requirements of statutory legislation and codes of practice related to euthanasing livestock
- workplace procedures for euthanasia of livestock as required, describe animal handling, restraint and behaviour for carrying out euthanasia
- signs of death in an animal
- anatomy and physical features of the relevant livestock species
- methods of euthanasia suitable for the livestock species as outlined in the relevant codes of practice

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessments for the following performance evidence must be conducted on a live animal:

- carry out euthanasia of animal

Competency in this unit can be determined in a single species.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK308 Identify and draft livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify and draft or sort animals for sale, breeding or other enterprise requirements.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Identify animals	1.1 Identify criteria for animal selection clarified from production and marketing information and supervisor or management instructions. 1.2 Implement procedures to control and sort livestock which comply with enterprise animal welfare and work health and safety policies 1.3 Identify and separate animals according to unit selection criteria 1.4 Apply identification devices safely and humanely 1.5 Identify hazards, assess risks and implement controls 1.6 Select and use suitable personal protective equipment
2. Assess and select animals	2.1 Assess animals to comply with industry and enterprise criteria and guidelines 2.2 Rank and select animals selected using performance records, weight, sex or other organisational criteria 2.3 Record and report selection 2.4 Observe accepted guidelines and industry norms for prescribed medication withholding periods when selecting animals 2.5 Complete and maintain records and documentation 2.6 Apply enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK308A Identify and draft livestock

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK308 Identify and draft livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify work health and safety hazards and implement safe work practices
- handle and draft livestock in line enterprise animal welfare practices
- identify criteria for animal selection
- control and sort livestock
- select animals according to selection criteria
- safely and humanely apply identification devices
- appraise and grade animals
- recognise livestock abnormalities
- apply relevant work health and safety requirements
- apply relevant biosecurity and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- handling techniques and restraint methods
- animal movement and drafting
- animal welfare principles
- livestock behaviour relevant to drafting
- selection criteria for breeding stock
- livestock identification systems and devices
- enterprise animal identification procedures
- State and Territory work health and safety and animal welfare legislative and enterprise requirements.

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK309 Implement animal health control programs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement animal health control programs.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Assess animal health status and treatment options	1.1 Source information on animal health program from the livestock production plan 1.2 Assess animal health status and identify potential health issues for different mobs and classes of livestock 1.3 Identify prevention and treatment strategies to resolve health issues 1.4 Source information on parasite immunity to different classes of chemicals and plan for rotation of chemical groups
2. Prepare for treatment of animals	2.1 Identify animals affected by infection or parasites or requiring treatment under the animal health plan 2.2 Determine the severity of infection where applicable through approved testing methods or by seeking expert/veterinary advice 2.3 Determine the type and severity of infestation where applicable through faecal egg counts or other tests 2.4 Determine the need for treatment and the type and scope of treatment and prepare according to manufacturer's specifications or veterinary advice 2.5 Prepare equipment and materials and treatment site 2.6 Identify hazards, assess risks and implement control measures 2.7 Select and use personal protective equipment
3. Treat animals	3.1 Handle and restrain animals without causing harm or injury to animal or handler and in line with enterprise animal welfare policies 3.2 Administer treatment hygienically and consistently according to manufacturer's specifications or veterinary advice 3.3 Record withholding periods and other details of treatment 3.4 Identify treated animals to ensure withholding period (WHP) compliance and isolation from non-treated animals where required 3.5 Count animals out, prepare and move along a planned route without damage to person, property or environment
4. Complete treatment process	4.1 Monitor animal health and condition post-treatment and report abnormalities 4.2 Identify the environmental implications associated with the treatment of animals, assess and control appropriately 4.3 Clean equipment and worksite and dispose of waste, including animal residues 4.4 Store health treatments appropriately 4.5 Document relevant information

Element	Performance criteria
	4.6 Apply enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK309A Implement animal health control programs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK309 Implement animal health control programs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work practices for animal health treatment
- identify the symptoms of parasite infestation and other diseases
- monitor animal health status and refer to the production plan for intervention strategies
- select livestock prone to infection for culling
- accurately diagnose the type and severity of infection or parasite infestation
- arrange and co-ordinate equipment and resources
- read and interpret chemical and veterinary health labels, manufacturer's specifications and Safety Data Sheets (SDSs)
- calculate animal numbers and measure treatment dosage and rates
- select and administer treatments appropriate to treat infections and infestations and observe withholding periods
- drench and vaccinate livestock
- provide due care and humanely handle animals
- return animals to prepared and clean environments
- monitor animals for treatment effectiveness
- apply relevant work health and safety requirements
- apply relevant biosecurity, animal welfare and environmental sustainability policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of parasite infestation and their symptoms
- parasite resistance of different classes of livestock

- application procedures and effects of veterinary chemicals
- types of health preparation treatments
- enterprise vaccination program and procedures
- identification of and prescribed treatments for infections and infestations
- grazing management strategies used in internal parasite control
- drenching equipment, drenches and their efficiency
- relevant codes of practice with regard to the safe use and handling of hazardous substances
- withholding periods for treated animals
- animal handling and restraint techniques
- animal welfare principles
- relevant work health and safety and animal welfare legislative and enterprise requirements

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK310 Implement feeding plans for intensive production

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement feeding plans

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to intensive animal production systems.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare for feeding	1.1 Identify work health and safety hazards, assess risks and implement suitable controls 1.2 Assess and record livestock welfare and condition 1.3 Identify livestock production status or stage of production 1.4 Identify environmental impacts of undertaking work, assess likely outcomes and, if necessary, take responsible action 1.5 Check and maintain feed distribution system and feeders 1.6 Follow enterprise animal welfare policies
2. Carry out feeding and watering	2.1 Check automatic and computerised feeders for blockages and correct functioning 2.2 Rectify abnormalities or irregularities with feed stocks 2.3 Monitor feed consumption and wastage and make adjustments 2.4 Feed and water livestock as required 2.5 Adjust watering systems for height or position 2.6 Check water flow and make appropriate adjustments 2.7 Empty watering containers or lines and clean where necessary
3. Conduct hygiene and administration activities	3.1 Clean feeding equipment appropriately to maintain hygiene standards 3.2 Collate gathered information and present the information 3.3 Complete required records and documentation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK310A Implement feeding plans for intensive production

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK310 Implement feeding plans for intensive production

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply relevant work health and safety requirements, identify hazards and implement safe work procedures and suitable risk controls
- assess livestock according to enterprise requirements
- prepare for feeding livestock
- carry out feeding and watering
- clean feeding equipment
- complete records and documentation
- follow relevant biosecurity requirements and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant work health and safety requirements
- relevant animal welfare practices and biosecurity requirements
- environmental impacts of intensive livestock feeding
- methods of assessing livestock condition
- systems and stages of intensive livestock production
- feed distribution systems and feeders, their functions, maintenance and servicing
- methods of storage and handling of intensive livestock feed and impact of feed quality changes on livestock
- intensive livestock feeding programs and impact of program changes or variations on livestock
- watering systems and equipment, their functions, maintenance, servicing and impact of changes or variations on livestock

- methods of cleaning feed equipment, cleaning agents, their proper use and disposal, and relevant work health and safety practices
- type of information to be gathered, documentation and records which must be maintained

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK311 Implement feeding plans for livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor available pasture for grazing and implementing a feeding plan.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Determine livestock condition and nutritional requirements	1.1 Monitor and report livestock condition 1.2 Identify livestock production status 1.3 Source livestock nutritional requirements and the nutritional value of feedstuffs from the feeding plan 1.4 Use feeding plans to determine adjustment in response to the monitoring of livestock condition and pasture growth 1.5 Report and separate animals that are in atypical condition, injured or diseased in line with enterprise biosecurity policies 1.6 Apply enterprise animal welfare policies to livestock handling and husbandry activities
2. Assess pasture feed	2.1 Assess quantity and quality of available pasture 2.2 Implement grazing management plans and monitor to ensure the sustainable stocking capacity of pasture 2.3 Monitor grazing behaviour of livestock and identify shy or problem feeders 2.4 Determine livestock feeding methods and level of supplementary feeding if required
3. Manage the feeding of livestock	3.1 Graze livestock on pasture according to the guidelines described in the feeding plan 3.2 Obtain required supplementary feed 3.3 Provide supplementary feed to livestock in the appropriate manner and times 3.4 Identify and assess indications of any negative environmental impacts and make amendments to the feeding method as required 3.5 Monitor and report condition and live weight response to feeding

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK311A Implement feeding plans for livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK311 Implement feeding plans for livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- monitor pasture health and condition
- assess herd/flock health and condition and live weight
- identify livestock nutritional requirements
- order feed if requested in line with feeding plan
- identify feeding problems and animals that require individual treatment
- handle livestock humanely and monitor animal welfare
- respond to or report negative environmental impacts of feeding
- apply relevant biosecurity, animal welfare and environmental sustainability policies

Knowledge Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- monitor pasture health and condition
- assess herd/flock health and condition and live weight
- identify livestock nutritional requirements
- order feed if requested in line with feeding plan
- identify feeding problems and animals that require individual treatment
- handle livestock humanely and monitor animal welfare
- respond to or report negative environmental impacts of feeding

- apply relevant biosecurity, animal welfare and environmental sustainability policies

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK312 Coordinate artificial insemination and fertility management of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate artificial insemination and fertility management of livestock.

This unit can be delivered in the context of the following industries: beef cattle, dairy cattle, alpacas, sheep and goats.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity requirements, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities, work in a range of known contexts and use discretion and judgement in the selection and use of available resources.

Operators performing artificial insemination may require accreditation and certification, such as National Herd Improvement Association of Australia Inc. accreditation for cattle AI technicians.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare animals for artificial insemination (AI)	1.1 Determine body condition of individual female livestock and record body condition scores 1.2 Rank female livestock according to body condition scores and adjust nutritional requirements to facilitate optimum condition at the time of artificial insemination 1.3 Ensure that feeding strategies and supplementation are appropriate to animals' environment and seasonal conditions 1.4 Confirm females are not pregnant before commencing the AI program
2. Facilitate artificial insemination	2.1 Carry out oestrus inducement and detection procedures appropriately in compliance with animal welfare requirements and industry standards 2.2 Prepare artificial insemination equipment and facilities and obtain semen 2.3 Use handling techniques that minimise stress and discomfort to livestock in compliance with work health and safety and animal welfare requirements 2.4 Apply hygiene procedures to minimise risk of infection
3. Carry out post AI procedures	3.1 Maintain female livestock on appropriate nutrition and husbandry management 3.2 Monitor female livestock for signs of early abortion or return to oestrus 3.3 Apply pregnancy detection techniques at earliest opportunity. 3.4 Complete and maintain records of artificial insemination and pregnancy status

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK312A Coordinate artificial insemination and fertility management of livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK312 Coordinate artificial insemination and fertility management of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare females for insemination
- detect females in oestrus
- sterilise equipment and prepare hygienic worksite prior to insemination procedures
- coordinate the artificial insemination of animals
- monitor livestock post insemination
- coordinate and record the results of pregnancy testing
- follow relevant work health and safety, animal welfare and biosecurity requirements and practices relevant to work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- body condition scoring
- relevant husbandry and management practices for pregnant and non-pregnant female livestock
- relevant anatomy and physiology of female livestock
- reproductive physiology and pregnancy development of female livestock
- requirements and procedures of artificial insemination
- reproductive diseases and complications in female livestock
- pregnancy testing methods
- relevant work health and safety, animal welfare and biosecurity requirements, and sustainability practices

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessments for the following performance evidence must be conducted on live animals:

- facilitate artificial insemination

Competency in this unit can be determined in a single species.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK313 Monitor livestock production growing environments

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor livestock production growing environments.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor livestock health and welfare	1.1 Confirm workplace information and clarify with supervisor 1.2 Identify work health and safety hazards assess risks implement

Element	Performance criteria
	suitable controls according to enterprise guidelines 1.3 Identify and report non-productive and slow growing livestock 1.4 Assess animals for overall health and welfare
2. Monitor the production environment	2.1 Monitor environmental parameters according to the production plan and make adjustments as required 2.2 Monitor hygiene and welfare procedures and adjust as required 2.3 Monitor disposal of waste and debris
3. Monitor feed	3.1 Monitor feed to ensure the correct diet is offered to livestock for optimum growing conditions 3.2 Monitor feed to ensure fresh palatable feed is available to livestock
4. Perform routine maintenance checks	4.1 Check all buildings, structures and production areas for wear and tear 4.2 Check equipment for delivering water and feed 4.3 Check equipment controlling the housing environment
5. Complete monitoring activities	5.1 Report significant problems to the enterprise 5.2 Record checks

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK313A Monitor livestock production growing environments

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK313 Monitor livestock production growing environments

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work practices
- monitor livestock health and welfare
- monitor the production environment
- monitor feed systems and water supplies
- perform routine maintenance checks
- complete monitoring activities
- follow relevant biosecurity and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- production parameters and production assessment systems of the livestock industry
- signs of health and methods of assessing livestock health
- relevant animal welfare requirements of the livestock industry and their impact on the enterprise
- housing, production and management systems of the livestock industry and equipment used in these systems
- relevant hygiene and biosecurity requirements of the livestock industry and their impact on the enterprise
- relevant waste disposal requirements of the livestock industry and their impact on the enterprise
- feed management and feeding programs of the livestock industry and their impact on the enterprise

- monitoring, maintenance and servicing of housing structures, production structures, environmental control equipment, watering equipment and feed delivery equipment
- type of information to be gathered, documentation and records which must be maintained
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK314 Prepare animals for parturition

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to feed and care for animals through the latter stages of pregnancy to birthing.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Identify and provide animal nutritional needs	1.1 Identify nutritional needs of pregnant animals and confirmed against the feeding plan 1.2 Determine and provide feed supplements as required 1.3 Implement procedures to minimise feed wastage and spillage, and dispose and recycle feed waste 1.4 Identify hazards, assess risks and implement control measures
2. Monitor feeding process	2.1 Monitor grazing and supplementary feeding to ensure animals are maintained in the required condition 2.2 Record and report feeding abnormalities 2.3 Identify and assess environmental implications associated with animal production and implement relevant measures
3. Maintain a secure environment for animals	3.1 Monitor and maintain condition and security of paddocks, shelter and housing 3.2 Carry out basic repair work and report 3.3 Assess risk of predators to newborn animals and report in line with workplace procedures 3.4 Implement environmentally responsible measures to eradicate or control identified predators
4. Carry out animal husbandry procedures	4.1 Prepare animals for birthing 4.2 Determine and administer preventative health treatments 4.3 Prepare and administer contingency measures as required 4.4 Provide protection from weather for newborn animals 4.5 Apply enterprise animal welfare policies to all livestock husbandry and handling activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK314A Prepare animals for parturition

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK314 Prepare animals for parturition

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- match supply of grazing or predetermined rations to nutritional requirements for pregnant animals
- monitor animal health and condition and recognise abnormalities
- carry out animal husbandry procedures, and provide due care and handle animals humanely in line with enterprise animal welfare policies
- maintain animal shelter and housing where applicable
- administer preventative health treatments
- collect, store and administer colostrum
- implement contingency measures in the event of adverse weather or birthing difficulties
- employ safe and environmentally responsible systems and procedures with regard to the handling of animals, feed, hazardous substances and predator control strategies
- read and interpret manufacturers specifications, work and feeding plans, and Safety Data Sheets
- assess and calculate herd/flock numbers, measure feed, assess rate and frequency of feeding, and calculate animal gestation
- apply relevant work health and safety requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- physiological and behavioural signs of impending birth
- animal behaviour and nutritional requirements of pregnant animals
- pasture and animal grazing management
- feed and feed supplements for pregnant animals and when to provide them

- effects of weather conditions, and inadequate nutrition on pregnant animals and their newborn
- preventative health treatments, procedures and methods
- animal husbandry procedures
- environmental impact of animals on ground cover and minimisation measures
- hazards associated with handling animals and veterinarian medicines and chemicals
- State/Territory legislation, regulations and codes of practice with regard to work health and safety, animal welfare and poisons
- predators and behaviour patterns, and control and eradication measures
- relevant licensing and permit requirements (firearms)
- enterprise policies with regard to birthing animals, recording and reporting routines

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK315 Prepare for and implement natural mating of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare for and implement natural mating of livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare paddocks or yards	1.1 Confirm particular livestock mating plan with supervisor 1.2 Select paddocks or yards and stock to appropriate levels 1.3 Plan predator control program and implement where appropriate 1.4 Identify hazards, assess risks, implement controls and report safety concerns to the supervisor 1.5 Select and use safety and personal protective equipment
2. Prepare dams for joining	2.1 Monitor live weight of dams through weighing and condition scoring 2.2 Adjust nutrition levels to achieve targeted joining weights in line with feeding strategy 2.3 Implement dam health and husbandry operations 2.4 Draft mobs for joining
3. Prepare sires for joining	3.1 Carry out physical examination of sires prior to joining 3.2 Seek veterinary advice where appropriate 3.3 Determine mating ratios 3.4 Select replacement sires in time to allow adjustment to new environment 3.5 Carry out sire health, handling and husbandry operations in line with individual requirements and enterprise animal welfare policies 3.6 Test mate sires to assess libido and serving capability if required 3.7 Monitor sires environment for optimum mating performance
4. Join sires to dam mobs	4.1 Select dates for joining where appropriate according to the mating plan 4.2 Organise test joinings for new sires if appropriate 4.3 Introduce sires to herds or individual dams to ensure good contact 4.4 Remove sires from herds at the scheduled time
5. Monitor mating activity	5.1 Observe and record mating activity 5.2 Observe distribution of sires within each mob 5.3 Take remedial action if required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK315A Prepare for and implement natural mating of livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK315 Prepare for and implement natural mating of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work practices
- prepare dams and sires for joining
- manage dams and sires during joining
- appraise breeding soundness in animals
- estimate live weights
- monitor joining activity
- prepare joining paddocks
- assess the serving capacity and fertility of males pre joining
- ensure females are above minimum body weights to exhibit oestrus
- use sufficient males for the number of females to be mated in the group
- use back up sires where single sire mating is practised
- record mating details
- apply relevant work health and safety requirements
- apply relevant biosecurity and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- mating behaviour of sires and dams
- optimum live weights and condition for mating
- physical abnormalities and mating problems in males and females
- environmental influences on joining

- work health and safety and animal welfare legislation, codes of practice and enterprise procedures

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK316 Prepare livestock for competition

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and train livestock for competitive showing.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Follow instructions to prepare livestock for showing	1.1 Identify and prepare livestock for showing 1.2 Monitor feed and water supplies and replenish as required 1.3 Maintain feed records 1.4 Monitor health and welfare status of livestock and report abnormalities 1.5 Monitor and maintain facilities 1.6 Identify hazards, assess risks and report to the supervisor
2. Handle and groom livestock prior to competition	2.1 Select, check and use appropriate handling and grooming equipment 2.2 Condition livestock to human handling and train to the standard required for show handling and performance 2.3 Groom livestock for showing to competition standard 2.4 Carry out handling procedures with minimum stress and discomfort to livestock, and maximum safety for livestock, handlers and other parties and in line with animal welfare requirements
3. Present livestock	3.1 Check equipment to be used in showing for correct operation and prepare for presentation requirements 3.2 Present livestock using handling techniques to exhibit livestock to best advantage according to competition requirements 3.3 Comply with instructions and requests from competition officials 3.4 Report and record relevant information in compliance with legislation and enterprise requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK316A Prepare livestock for competition

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK316 Prepare livestock for competition

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards, assess risks and implement safe work procedures
- plan for and provide livestock feed and water requirements
- maintain livestock facilities and handling equipment
- restrain, handle and groom livestock using safe and humane methods and procedures
- train livestock for showing
- comply with animal welfare requirements
- prepare livestock to competition standards
- parade and present livestock for show
- read and interpret written information, receive, comprehend and communicate oral information, write basic statements and maintain livestock records
- apply relevant work health and safety requirements
- apply relevant biosecurity and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- competition requirements for grooming, handling and presentation
- components and functions of handling equipment
- handling techniques, restraint methods and when to use them
- livestock grooming and training techniques (to lead and stand correctly)
- livestock health and nutritional requirements
- preparation and maintenance requirements for livestock facilities and equipment
- livestock movement and behavioural characteristics in handling and confined areas

- work health and safety , animal welfare and livestock movement legislative requirements

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK317 Plan to exhibit livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan to exhibit livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Select potential exhibits	1.1 Determine selection criteria 1.2 Choose potential exhibits against selection criteria and according to industry exhibit expectations 1.3 Identify faults in potential exhibits and take remedial action
2. Determine preparation requirements	2.1 Identify preparation requirements 2.2 Identify and organise resources and facilities to allow for adequate preparation prior to exhibition 2.3 Communicate preparation requirements, including work health and safety animal welfare requirements to staff 2.4 Make arrangements to ensure necessary resources and facilities at the exhibition are available and will be ready
3. Supervise preparation	3.1 Check potential exhibits and monitor progress 3.2 Monitor staff in line with established preparation procedures and realistic time-lines 3.3 Implement contingency plans to meet preparation shortfalls as required 3.4 Advise staff of any changes in preparation procedures and instruct accordingly
4. Present exhibition	4.1 Check transport arrangements to ensure that transport is suitable and that exhibits will arrive in time 4.2 Ensure livestock movement documentation is completed 4.3 Confirm entries meet exhibition schedule requirements and procedural rules 4.4 Display exhibits to their best advantage and according to exhibition guidelines 4.5 Optimise promotional and sales opportunities and pursue as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK317A Plan to exhibit livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK317 Plan to exhibit livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select livestock for exhibition
- prepare animals for exhibition
- present livestock to best advantage
- promote the product to clients and pursue sales opportunities
- communicate with staff during preparations, exhibit officials and potential customers
- identify potential exhibits against selection criteria to accurately select livestock/fleeces
- train animals to be led and presented in competition
- organise entries, resources and facilities for showing
- arrange and prepare for transport
- apply relevant work health and safety requirements
- apply relevant biosecurity and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- criteria for competition judging
- preparation procedures
- requirements for entry of competitors
- transportation requirements
- feeding and nutrition requirements
- communication and supervision techniques
- observation methods

- relevant legislative work health and safety requirements, especially as they relate to livestock and fleece exhibitions, and animal transportation, animal welfare and safe livestock handling techniques
- enterprise and industry policies and codes of practice with regard to livestock exhibitions, sales, livestock transportation, and recording and reporting requirements

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK318 Rear newborn and young livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to rear newborn and young livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare for care of newborn and young	1.1 Identify, select and prepare facilities, equipment and supplies needed to provide care 1.2 Assess and prepare for the needs of newborn and young animals 1.3 Implement and observe feeding routines 1.4 Identify and maintain hygiene, health and environmental requirements 1.5 Handle newborn and young animals humanely in line with enterprise animal welfare policies
2. Provide care for newborn and young	2.1 Provide feed and feed supplements as required 2.2 Monitor relationship between mother and young and implement strategies to address any problems where appropriate 2.3 Maintain and monitor feeding, water and shelter areas for correct operation, cleanliness and hygiene 2.4 Treat routine health and feeding problems, including digestive upsets and infections
3. Monitor health of newborn and young	3.1 Monitor newborn and young against benchmarks for growth, health and development 3.2 Take appropriate action for sick, weak, orphaned and injured, newborn and young 3.3 Seek assistance for more complex health and feeding problems 3.4 Separate newborn and young requiring routine husbandry and health procedures treat and return 3.5 Carry out treatments and checks appropriately
4. Meet ongoing requirements	4.1 Identify young animals ready for weaning and wean according to weaning programs 4.2 Identify and meet feeding requirements 4.3 Handle animals regularly as required 4.4 Keep and maintain records 4.5 Ensure all work is conducted safely and in accordance with enterprise requirements, work health and safety and animal welfare legislation and regulations

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK318A Rear newborn and young livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK318 Rear newborn and young livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- weigh and assess condition of newborn and young animals
- work within animal welfare legislative requirements and enterprise and industry guidelines
- identify abnormal conditions and report or react promptly
- safely and humanely handle and care for newborn and young animals
- recognise signs of stress or ill health in newborn and young animals
- communicate with other personnel
- provide support as needed to veterinarians attending to sick newborn and young animals
- collect samples
- identify the young and their parent
- use feed, shelter and ventilation equipment
- calculate feed and dose rates
- apply relevant work health and safety requirements
- apply relevant biosecurity and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- newborn and young animals development and growth
- newborn and young animals feed, shelter and environmental requirements
- common deformities
- infection controls and treatment programs

- significance of colostrum to livestock
- feeding systems and weaning strategies
- husbandry procedures
- hygiene and cleanliness requirements
- enterprise requirements for rearing of newborn and young animals and recording and reporting requirements
- relevant legislative animal welfare health and work health and safety requirements especially as they relate to safe animal handling techniques, feeding, animal treatments, and rearing and caring for newborn and young animals

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK319 Slaughter livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to slaughter livestock humanely.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They work in a range of known contexts, use discretion and judgement in the selection and use of available resources and complete routine activities.

Individuals must hold firearms licences if they are using firearms to slaughter livestock.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for slaughter	1.1 Identify reasons for slaughter 1.2 Identify and prepare slaughter site

Element	Performance criteria
	1.3 Prepare equipment and transport equipment to slaughter site where required 1.4 Select and prepare livestock to be slaughtered in compliance with animal welfare requirements 1.5 Determine the slaughter method
2. Slaughter animal	2.1 Conduct slaughter humanely in compliance with work health and safety and animal welfare requirements 2.2 Bleed animal by severing the major blood vessels safely and hygienically 2.3 Dress, hang and protect carcase where appropriate 2.4 Comply with all relevant work health and safety, public health, hygiene, animal welfare, biosecurity and environmental sustainability requirements
3. Complete slaughter operations	3.1 Dispose of, or destroy offal and waste products in an environmentally responsible manner and according to State/Territory and local authority health standards 3.2 Clean and store equipment safely and appropriately 3.3 Clean slaughter site appropriately 3.4 Prepare meat for intended use where appropriate

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK319A Slaughter livestock

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK319 Slaughter livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare site, equipment and livestock for slaughter safely and appropriately
- conduct the slaughter of livestock in compliance with relevant requirements and regulations
- complete slaughter operations
- dispose of, or destroy offal and waste products in an environmentally responsible manner and according to State/Territory and local authority health standards
- comply with all relevant work health and safety, public health, hygiene, animal welfare, biosecurity and environmental sustainability requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant work health and safety, public health, hygiene, animal welfare, biosecurity and environmental sustainability requirements
- preparation, selection and use of the site, equipment and livestock for the slaughter
- methods and procedures for the humane slaughter of livestock
- preparation, processing and disposal of the carcass and its parts after slaughter
- post-slaughter procedures for the site and equipment
- anatomy and physical features of the species being slaughtered
- typical signs of pathology in major organs
- typical symptoms and clinical signs of notifiable diseases in the relevant species
- codes of practice for the welfare and husbandry of relevant livestock species

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessments for the following performance evidence must be conducted on a live animal:

- prepare for slaughter
- slaughter animal
- complete slaughter operations

Competency in this unit can be determined in a single species.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK320 Coordinate and monitor livestock transport

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to safely and efficiently transport livestock to a destination within specified timeframes.

Animal welfare and low stress stock handling principles and practices are to be observed at all times.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for the transport of livestock	1.1 Check the transport directions and calculate load 1.2 Determine transport requirements and engage a suitable carrier 1.3 Identify required equipment and resources and move livestock to loading facility 1.4 Assemble and prepare livestock for transport 1.5 Identify existing and potential hazards and report to supervisor
2. Load livestock	2.1 Observe industry and enterprise work health and safety policies and procedures 2.2 Ensure documentation is signed by the relevant person and check that the required animal identification is in place 2.3 Obtain relevant permits and comply with movement restrictions where required 2.4 Record animal details and identification as required using technology where applicable 2.5 Load and secure prepared livestock in accordance with industry and enterprise animal welfare and work health and safety procedures and requirements
3. Monitor transport and unload livestock	3.1 Communicate with the carrier to ensure livestock are transported with minimal stress and discomfort according to animal welfare requirements 3.2 Ensure livestock are checked regularly throughout the journey and unloaded for feeding and watering appropriately 3.3 Unload livestock using appropriate equipment and facilities, such as National Livestock Identification System (NLIS) readers where applicable 3.4 Monitor livestock condition and welfare post transport and provide feed and water appropriately
4. Complete transportation operations	4.1 Clean, maintain and secure vehicle, equipment and facilities appropriately 4.2 Complete required records according to legislative and enterprise requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK320A Coordinate and monitor livestock transport

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK320 Coordinate and monitor livestock transport

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards, assess risks and implement safe work procedures
- interpret transport plan requirements
- coordinate the transport of livestock
- safely, load livestock while maintaining load within specifications
- distribute animals on transport to prevent overcrowding and minimise risk of injury
- obtain relevant permits and comply with movement restrictions
- ensure documentation and livestock identification is in place
- ensure appropriate recording including use of technology where applicable
- safely unload livestock
- review health and condition of livestock after transit
- demonstrate safe and humane handling of livestock according to animal welfare codes of practice
- demonstrate safe and environmentally responsible workplace practices
- read and comprehend manufacturers specifications, work and maintenance plans, and Safety Data Sheets (SDSs)
- apply relevant work health and safety requirements
- apply relevant biosecurity and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- industry and legislative requirements for the transport of livestock
- model codes of practice for the welfare of animals Land transport (various species)

- animal welfare, biosecurity and work health and safety legislative requirements
- environmental codes of practice with regard to vehicle operation and livestock transport
- market requirements in relation to the quality and condition of livestock
- process of sourcing and costing transportation alternatives
- livestock transport recording and documentation requirements
- enterprise policies with regard to the use of vehicles and equipment
- relevant documentation requirements and procedures

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK321 Service and repair bores and windmills

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to service and repair bores and windmills. This includes activities such as replacing parts, checking equipment for wear and tear, determining lime deposits, stripping, dismantling or reassembling bores and windmills.

These activities carry risk of falls due to working at heights, injury due to working with moving parts and machinery.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes of practice and manufacturer's specifications

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish bore history and enterprise policy	1.1 Review enterprise records and confirm bore history 1.2 Confirm enterprise bore and windmill service and repair policy with supervisor 1.3 Obtain any required specialist instructions and assistance as appropriate
2. Prepare to carry out service and repairs	2.1 Select and inspect tools, equipment and materials appropriate to job requirements 2.2 Carry out dismantling and stripping of windmill and bore installations appropriately 2.3 Identify hazards in the workplace, assess and control risks appropriately
3. Carry out service and repairs	3.1 Select, use and maintain personal protective equipment appropriately 3.2 Carry out service and repairs to bores, windmills, motors and pumps appropriately 3.3 Report complex faults and repairs and refer for specialist advice and remedial action appropriately 3.4 Retrieve lost equipment appropriately
4. Complete service and repair activities	4.1 Reassemble and test bore and windmill components appropriately for full function and flow 4.2 Clean work site, tools and equipment, return to operating order and store appropriately 4.3 Collect, treat, dispose of or recycle waste from service and repair activities appropriately 4.4 Document information appropriately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK321A Service and repair bores and windmills

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK321 Service and repair bores and windmills

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards, assess risks and implement safe work procedures
- apply basic diagnostic techniques
- recognise faults and deterioration of components and carry out repairs to bore, mill heads and pumps to ensure the full function and flow of water supplies
- select and match tools and equipment with work requirements
- apply safe workplace and positive environmental procedures
- read and interpret enterprise policy, maintenance plans, manufacturer specifications and Safety Data Sheets (SDSs)
- effectively communicate with contractors and supervisor, record and report maintenance details and outcomes
- calculate volumes, and measure speed, flow rates and distance
- maintain all components of bores and windmills
- carry out testing procedures to determine correct operation
- refer to bore histories for troubleshooting
- apply relevant work health and safety requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- construction of bores and windmills and maintenance requirements
- diesel engine components, maintenance requirements and repair procedures
- working principles of diesel engines
- drive systems and components
- types and uses of lubricants and other servicing materials

- servicing characteristics of bores and windmills
- types, characteristics, uses and limitations of hand and power tools
- basic diagnostic processes and techniques
- environmental codes of practice with regard to maintenance activities
- work health and safety legislative requirements

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK322 Transport farm produce or bulk materials

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to transport farm produce or bulk materials.

All work must be carried out to comply with workplace procedures, work health and safety, biosecurity legislation and codes of practice.

This unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

Note: relevant vehicles licences are required when farm produce or bulk materials are transported on public roads.

This unit does not apply to livestock transport

Relevant vehicles licences are required when farm produce or bulk materials are transported on public roads.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Organise for the transport of farm produce	1.1 Receive, interpret and clarify briefing, hand-over details, authorisation and clearances appropriately 1.2 Confirm the transportation schedule and organise appropriate equipment and authorised personnel 1.3 Adhere to schedule specifications 1.4 Identify and manage hazards and risks 1.5 Conduct equipment pre-operational checks 1.6 Observe site environmental practices
2. Load, transport and unload farm produce	2.1 Conduct start-up, park and shutdown procedures for plant and equipment 2.2 Determine load appropriately and prevent damage to equipment or loss of load 2.3 Load and secure farm produce 2.4 Transport farm produce 2.5 Ensure vehicles follow approved transport routes and speed limits 2.6 Conduct transport of farm produce 2.7 Unload farm produce or bulk materials 2.8 Coordinate transport of farm produce with harvesting machinery, if required 2.9 Complete transport of farm produce to plan and within the operating capacity of the equipment 2.10 Dispatch produce retain documentation, including weigh bills
3. Protect farm produce quality and integrity	3.1 Maintain hygiene of all surfaces in contact with farm produce 3.2 Protect farm produce from loss, contamination, moisture and pests during transport 3.3 Store farm produce according to enterprise procedures 3.4 Clean and maintain storage and holding areas, keeping potentially hazardous substances at a safe distance 3.5 Monitor the transport environment using temperature data loggers, if applicable 3.6 Check quality of farm produce at unloading 3.7 Monitor batches of farm produce for isolation and product integrity, where applicable

Element	Performance criteria
4. Carry out equipment maintenance	4.1 Conduct visual inspection and fault finding 4.2 Conduct routine operational servicing

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK322A Transport farm produce or bulk materials

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK322 Transport farm produce or bulk materials

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- manoeuvre transport machinery or truck in difficult sites and conditions
- drive truck safely using all available controls
- clean and store vehicles and equipment
- identify operational faults
- complete time sheets and other maintenance records as required
- use communication methods to advise and anticipate conditions
- interpret plans, reports, maps, specifications
- maintain and store records, reports, and log books
- select, fit, and use personal and protective equipment
- operate and load a truck in accordance with Road Traffic Regulations
- plan, load, unload and move a range of loads over a full range of road conditions in accordance with Road Traffic Regulations
- conduct pre-start and post-operational checks
- maintain the quality and integrity of transported produce
- apply relevant work health and safety requirements
- apply relevant biosecurity practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- manufacturers and work site requirements including property conditions, and hazards on the property and on the open road

- road traffic laws and licensing requirements
- organisational procedures for use of vehicles and equipment
- relevant work health and safety requirements for storage of materials and equipment
- work health and safety legislation, codes of practice, procedures, and principles, including manual handling
- emergency procedures
- site safety requirements
- equipment safety requirements
- operational, start up, and shutdown procedures and checks
- hauling and towing procedures
- receipt and document requirements at both ends of the transport operation
- differences in handling and operation with bagged and bulk loads
- relevant biosecurity requirements

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs to the Assessment Conditions.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK323 Maintain and monitor feed stocks

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain and monitor livestock feed stocks.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine quantities of stockfeed required	1.1 Undertake stocktake of stockfeed and update inventory 1.2 Check livestock feed plans and compare required quantities with

Element	Performance criteria
	quantities in stock
2. Place orders with suppliers	2.1 Place orders for stockfeed with suppliers 2.2 Ensure orders specify quantity, quality, delivery date, delivery site and any special instructions
3. Receive feed into store	3.1 Check delivery manifest and report discrepancies to supplier and supervisor 3.2 Check quality of stockfeed and report problems to supplier and supervisor 3.3 Transfer stockfeed into appropriate storage containers 3.4 Update and file records and labels
4. Prepare and maintain feed storage area and containers	4.1 Identify work health and safety hazards and take action to minimise risk 4.2 Clean feed storage area and containers according to enterprise cleaning schedule 4.3 Organise stocks of stockfeed according to enterprise inventory management policy 4.4 Label stockfeed correctly 4.5 Clean feed storage containers before refilling 4.6 Check feed storage area and containers regularly for signs of pest infestation 4.7 Identify problems with feed storage facilities and resolve or report to supervisor for resolution 4.8 Dispose of stockfeed that does not meet quality standards

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK323A Maintain and monitor feed stocks

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK323 Maintain and monitor feed stocks

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- undertake feed stocktake and update inventory
- determine quantities of stockfeed required
- place stockfeed orders with suppliers
- receive feed into feed store
- prepare and maintain feed storage areas and containers
- dispose of spoiled feeds
- implement relevant work health and safety and biosecurity requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- stocktaking and inventory for stockfeeds
- enterprise livestock feeding plans and determination of stockfeed quantities and qualities
- procedures for ordering stockfeeds
- procedures for taking, checking and handling stockfeeds during delivery
- post-delivery handling and storage of stockfeeds
- quality parameters of stockfeeds and feed ingredients
- documentation and record keeping requirements for stockfeeds
- procedures for cleaning feed storage areas and containers
- pest management of feed storage areas and containers
- monitoring, maintenance and servicing of feed storage facilities
- feed disposal methods and management
- relevant work health and safety and biosecurity requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK324 Care for and train working dogs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to select, train and care for working dogs in the rural industry.

This unit applies to farm workers who use dogs to handle livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. Individuals must be aware of state/territory regulations and licensing requirements for keeping working dogs.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify workplace requirement and select working dog	1.1 Identify and confirm working dog requirements for the workplace 1.2 Research suitable working dog breeds and determine availability 1.3 Inspect dogs for suitability and make selection according to workplace criteria
2. Develop and implement training program for working dog	2.1 Teach commands for working tasks 2.2 Introduce the dog to a small flock in a confined area 2.3 Train the dog to handle larger numbers in more open areas 2.4 Train the dog on specialist skills such as backing and forcing 2.5 Assess existing and potential hazards associated with handling livestock in the workplace and implement measures to control risks 2.6 Comply with animal welfare codes of practice
3. Maintain health and welfare of working dog	3.1 Monitor and maintain health and condition of the working dogs 3.2 Provide an adequate and balanced diet to meet nutritional requirements of the working dogs taking into account work load/training program 3.3 Seek veterinary advice and arrange for or administer preventative health treatments 3.4 Provide and maintain appropriate housing facilities and equipment in line with animal welfare requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK324A Care for and train working dogs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK324 Care for and train working dogs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify the workplace need for working dogs
- select working dog to meet workplace requirements
- develop working dog training programs and apply effective training methods
- maintain health and welfare of the working dog
- follow relevant work health and safety and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- working dog breeds and behaviour
- use of working dogs in the workplace
- effective working dog training systems and procedures
- livestock handling methods and techniques
- care, husbandry and management procedures for working dogs
- signs of health, anatomy and physiology of working dogs
- common illnesses of working dogs and preventative health strategies
- relevant State/Territory legislative and regulatory requirements with regard to work health and safety, animal welfare, biosecurity and the registration and care of domestic dogs

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and a simulated environment that accurately reflects performance in a real workplace setting.

Assessments for the following performance evidence must be conducted on live animals:

- develop and implement training program for working dog

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK325 Castrate livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to castrate young animals.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare for animal castration	<p>1.1 Interpret work to be undertaken from work program where necessary, and confirm with management</p> <p>1.2 Hold discussions with other workers who may be affected by the activities to ensure continued smooth operation of the production process</p> <p>1.3 Identify work health and safety hazards, assess risks, and implement suitable controls</p> <p>1.4 Select, use and maintain suitable personal protective equipment</p> <p>1.5 Hygienically clean castration area to minimise the risk of infection</p> <p>1.6 Select and assemble equipment, instruments and resources needed for castration operations, ensuring adequate supplies of consumables</p> <p>1.7 Separate male animals as required to facilitate ease of handling and to minimise stress and in compliance with animal welfare codes</p>
2. Castrate animals	<p>2.1 Select, catch and restrain individual animals using industry standard techniques</p> <p>2.2 Check animals for health and soundness according to organisation guidelines</p> <p>2.3 Castrate restrained animals in a humane and hygienic manner according to organisational guidelines, industry standards, and the relevant of animal welfare codes of practice</p> <p>2.4 Complete records as instructed by organisational guidelines</p>
3. Complete hygiene and administration activities	<p>3.1 Remove all debris, waste material and animal residues from the site and dispose of in an environmentally aware and safe manner according to organisation work procedures</p> <p>3.2 Hygienically clean, maintain and store instruments and equipment according to organisation work procedures</p> <p>3.3 Maintain a clean and safe area throughout and on completion of work</p> <p>3.4 Document work outcomes and report to the supervisor where appropriate according to organisation work procedures</p>
4. Monitor castrates	<p>4.1 Move animals from yard to pasture as soon as practical with minimal stress to reduce risk of infection</p> <p>4.2 Monitor animals to identify post-castration complications</p> <p>4.3 Identify and treat animals exhibiting signs of ill health or infection</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK325A Castrate livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK325 Castrate livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards, assess risks and implement safe operating procedures
- handle animals humanely and with minimal stress in line with animal welfare legislation codes of practice
- perform a recommended method of castration with attention to hygiene
- administer pre or post operative treatments
- monitor castrated animals
- carry out animal husbandry tasks in hygienic manner
- record the number and health of animals post castration
- work effectively as a part of a team and communicate with supervisors
- apply relevant work health and safety requirements
- apply relevant animal welfare and environmental sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- male anatomy as it relates to castration
- castration methods for various species of livestock
- organisation castration, hygiene and animal welfare procedures and policies
- industry standards for the care and husbandry of animals
- industry and enterprise requirements for debris, waste material and animal residues disposal
- relevant work health and safety legislation, codes of practice and industry and enterprise requirements
- relevant animal welfare legislation, codes of practice and industry and enterprise requirements

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK326 Mix and mill standard stockfeed

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to mix and mill feed for intensive livestock production.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work with livestock feed	1.1 Interpret work to be undertaken from the work program, where necessary, and confirm with supervisor

Element	Performance criteria
	1.2 Identify work health and safety hazards, assess risks and implement suitable controls 1.3 Select, use and maintain suitable personal protective equipment (PPE) 1.4 Select, check and maintain tools and equipment suitable for the work to be undertaken 1.5 Identify environmental impacts of undertaking work, assess likely outcomes and, if necessary, take responsive action
2. Order and store feed and ingredients	2.1 Order previously selected ingredients from the supplier 2.2 Store ingredients and feed safely in the location and manner determined by the supervisor 2.3 Rotate stock and order replacements to arrive at the appropriate time to ensure optimum freshness
3. Mix feed	3.1 Calibrate scales and containers to be used for measurements according to manufacturer instructions 3.2 Identify feed ingredients and obtain from storage locations 3.3 Measure ingredients in the specified ratios and quantities 3.4 Blend ingredients adequately and hygienically in the manner specified and using the appropriate equipment 3.5 Perform milling in the manner specified and using the appropriate equipment, if required
4. Conduct post-procedural hygiene and administration activities	4.1 Clean equipment to maintain hygiene standards 4.2 Complete all required records and documentation accurately and promptly

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK326A Mix and mill standard stockfeed

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK326 Mix and mill standard stockfeed

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify work health and safety hazards, assess risks and implement suitable control measures
- follow enterprise mill and mix stockfeed work program
- order and store feeds and ingredients
- identify feed ingredients and obtain from storage locations
- measure ingredients in the specified ratios and quantities
- mix feeds and ingredients in line with industry quality standards and requirements
- recognise and rectify minor operational faults and perform routine maintenance
- complete records and documentation of feed use and volumes for the shed
- conduct post-procedural hygiene and administration activities
- implement relevant biosecurity requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise requirements for mixing and milling feeds
- relevant work health and safety requirements
- tools and equipment machinery used for mixing and milling feeds, and the cleaning, maintenance, servicing and storage of such tools and equipment
- environmental impacts of mixing and milling feeds and strategies to mitigate such impacts
- type of feed ingredients and procedures for ordering, handling and storage of feed ingredients

- the impact of seed, chemical, insect and fungal contamination of grain. This includes an awareness of the industry process in place to monitor these contaminants - the National Residue Survey (NRS), the National Antibiotic Residue Minimisation (NARM) and programmed basket surveys
- measurement equipment for feed ingredients, and their calibration and maintenance
- procedures for mixing, blending and milling feed ingredients and feeds
- documentation and record keeping requirements for mixing and milling feed
- relevant biosecurity requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK327 Collect, store and administer colostrum

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect colostrum from lactating animals and processing the colostrum to support newborn animals.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Obtain colostrum	1.1 Obtain, check and sterilise required equipment 1.2 Select suitable donor animals and collect colostrum 1.3 Check frozen colostrum stored and select suitable ones for use 1.4 Select, use and maintain appropriate Personal Protective Equipment (PPE)
2. Administer colostrum to newborn animals	2.1 Identify newborn animals requiring supplementary colostrum 2.2 Obtain and prepare feeding equipment 2.3 Thaw frozen colostrum at room temperature 2.4 Warm thawed colostrum to body temperature 2.5 Administer warmed colostrum to newborn animals according to individual animal requirements and workplace procedures 2.6 Check newborn animals regularly after administration of colostrum and repeat colostrum feeds as required 2.7 Follow enterprise animal welfare policies
3. Store colostrum	3.1 Filter colostrum according to workplace procedures and place in appropriate container 3.2 Freeze surplus colostrum for future use and label container with details of donor animal and date of collection

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK327A Collect, store and administer colostrum

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK327 Collect, store and administer colostrum

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- obtain colostrum from suitable donor animals and select suitable frozen colostrum
- handle and feed new born animals appropriately
- handle frozen colostrum according to enterprise and health and safety procedures
- store colostrum for future use
- follow relevant work health and safety and animal welfare requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- nutritional needs of newborn animals and the need for feeding colostrum to newborn animals
- selection of suitable donor animals
- methods and equipment used to collect colostrum
- care, husbandry and management of newborn animals
- handling of frozen colostrum
- administration of colostrum to newborn animals and their post-administration care
- storage procedures of colostrum
- relevant work health and safety and animal welfare requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessments for the following performance evidence must be conducted on live animals:

- obtain colostrum
- administer colostrum to newborn animals

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK328 Remove and facilitate reuse of effluent and manure from an intensive production system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to remove and facilitate reuse of effluent and manure from an intensive livestock production system.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

The production enterprise may be required to comply with local council, State or Commonwealth licensing requirements for operations involving effluent and manure.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work with effluent disposal equipment	1.1 Interpret work to be undertaken from work program where necessary, and confirm with management 1.2 Hold discussions with other workers who may be affected by the maintenance activities to ensure continued smooth operation of the production process 1.3 Identify work health and safety hazards, assess risks and implement suitable controls 1.4 Select, use and maintain suitable personal protective equipment (PPE) 1.5 Select, check and maintain tools and equipment suitable for the work to be undertaken
2. Maintain and operate effluent storage and disposal system	2.1 Observe and follow regulatory and industry requirements and standards for effluent operations 2.2 Service and maintain effluent removal and disposal equipment 2.3 Use effluent disposal systems according to system design in compliance with approval granted by local government and state environment protection authority 2.4 Carry out techniques for irrigation compliance with relevant regulatory and industry standards when using liquid effluent storages 2.5 Flush and drain in-shed effluent pits as required 2.6 Turn composted effluent in compliance with relevant regulatory and industry standards
3. Monitor effluent disposal system	3.1 Check flow rates, pit levels, compost temperatures and equipment regularly to maintain effective operation of the system 3.2 Carry out cleaning procedures and hygiene practices 3.3 Identify environmental impacts of effluent disposal and reuse, assess likely outcomes and if necessary, take responsive action
4. Conduct hygiene and administration activities	4.1 Clean equipment according to manufacturer specifications 4.2 Clean and store attachments and other ancillary equipment according to manufacturer specifications 4.3 Dispose of all containers, leftover fluids, waste and debris from the operations safely and appropriately 4.4 Complete all required records and documentation accurately and promptly

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK328A Remove and facilitate reuse of effluent and manure from an intensive production system

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK328 Remove and facilitate reuse of effluent and manure from an intensive production system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify work health and safety hazards, assess risks and implement suitable controls
- make preparations to work with effluent disposal equipment
- maintain and operate effluent storage and disposal system in compliance with approval granted by local government and state environment protection authority
- monitor effluent disposal system
- conduct cleaning and hygiene practices associated with effluent operations
- implement relevant environmental practices
- complete organisational records

Knowledge Evidence

The candidate must demonstrate knowledge of:

- an enterprise work program and program requirements for effluent operations
- relevant work health and safety requirements
- tools, equipment and systems used for effluent operations (effluent handling, removal and disposal) and their functions, cleaning, maintenance, servicing and storage of such tools, equipment and systems
- relevant local government, State and Commonwealth regulations and industry requirements for effluent operations
- environmental impacts of effluent operations and liquid effluent irrigation, and strategies to mitigate such impacts
- irrigation techniques for liquid effluent
- functions, maintenance and service of effluent pits
- methods and maintenance of effluent composting

- methods for safe and appropriate disposal of containers, leftover fluids, waste and debris from effluent operations
- documentation and type of records that need to be completed for effluent operations
- relevant biosecurity requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK329 Implement procedures for calving

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor cows at calving and provide the support required.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to workers on cattle farms who are responsible for overseeing calving. These individuals are expected to refer any high risk issues or problems for veterinary advice.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for calving	1.1 Assess and monitor condition and health status of cow prior to calving 1.2 Check calving equipment, resources and materials and prepare for use 1.3 Graze cows at risk of calving difficulty (especially first calf heifers) in an area where intervention can be carried out with as little disruption as possible 1.4 Identify hazards in assisting with calving and follow safe work practices 1.5 Check mating records and confirm anticipated calving date
2. Observe the calving	2.1 Monitor cows for signs of approaching parturition and throughout calving 2.2 Note signs of calf malpresentation or dystocia from the rate of progress in giving birth and the initial orientation of the feet and head
3. Support calving	3.1 Handle calving cows calmly and put in a secure environment 3.2 Implement hygiene procedures to ensure that any calving equipment entering the birth canal is clean 3.3 Estimate the orientation and size of the foetus relative to the pelvis through manual palpation 3.4 Check the possibility of twins and adjust position of the lead foetus where required 3.5 Manipulate a malpresentation physically into the correct position where required 3.6 Apply calving ropes/chains are placed on the calf above the front fetlocks and appropriate calf pulling equipment in the case of dystocia, without causing undue harm to the female 3.7 Bring in specialist support in if normal assistance procedures are not adequate to assist the calving 3.8 Apply enterprise animal welfare policies to livestock handling procedures
4. Carry out monitoring after calf has been born	4.1 Allow cow to rest and encourage cow to lick the calf as an initial bonding 4.2 Check calves that have been assisted for clear airways 4.3 Leave the placenta for the cow to ingest after calving 4.4 Treat and record cows with retained placentas or other

Element	Performance criteria
	abnormalities 4.5 Maintain the calving environment, facilities and equipment in a safe, hygienic and operational state and report or fix faults 4.6 Keep record of calving

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK329A Implement procedures for calving

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK329 Implement procedures for calving

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and use safe work practices in the calving environment
- carry out cow husbandry procedures and recognise signs of imminent calving
- apply contingency measures for calving in the event of difficulties
- prepare calving environment, materials and resources to industry standards
- ability to correctly apply calving ropes/chains and use suitable calf pulling equipment
- monitor cow condition and recognise abnormal behaviour/presentations
- ability to manual palpate and recognise simple malpresentations
- recognise abnormalities in calving behaviour, expulsion of foetus and placenta, and progress of calf immediately after birth
- recognise when normal assistance procedures are not adequate to assist the calving and specialist veterinary support is required
- maintain a safe and secure post-calving environment
- demonstrate safe and environmentally responsible workplace practices
- apply relevant work health and safety requirements
- apply relevant animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- calving behaviour and basic health and nutritional requirements as directed
- calving equipment and materials, their components and functions
- calving intervention and non-intervention strategies
- normal calf presentation v abnormal that may need assistance

- problems associated with calving and intervention and follow up treatment
- enterprise policies with regard to calving down, recording and reporting routines
- health and injury hazards associated with handling cattle
- personal protective clothing and equipment, and when and how it should be used
- procedures for cleaning and maintaining treatment equipment and materials
- relevant State/Territory legislation, regulations and codes of practice with regard to work health and safety and animal welfare.

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK331 Comply with industry animal welfare requirements

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to comply with industry animal welfare requirements in the production of livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities, work in a range of known contexts, and use discretion and judgement in the selection and use of available resources. They provide and communicate solutions to a range of predictable problems.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine and identify animal welfare requirements	1.1 Determine legislative, regulatory and industry and enterprise animal welfare requirements 1.2 Identify workplace animal welfare concerns 1.3 Propose actions that can be taken to address identified workplace animal welfare concerns
2. Comply with animal welfare requirements	2.1 Carry out workplace animal welfare procedures and requirements consistently 2.2 Report non-conformance to supervisor 2.3 Take appropriate corrective action as advised by supervisor and in compliance with workplace procedures 2.4 Complete appropriate record keeping of workplace animal welfare concerns and actions taken
3. Participate in animal welfare process	3.1 Recognise animal welfare issues in the workplace, report to supervisor or management and take appropriate corrective action as required 3.2 Participate in workplace and/or industry animal welfare induction, training and programs 3.3 Participate in workplace and/or industry animal welfare emergency training

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK331A Comply with industry animal welfare requirements

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK331 Comply with industry animal welfare requirements

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine and identify animal welfare requirements of relevant legislations, regulations, codes of practice and industry and workplace procedures
- comply with animal welfare requirements by carrying out workplace procedures, reporting non-conformance, taking appropriate corrective actions and completing record keeping
- participate in workplace animal welfare processes by reporting animal welfare issues and taking part in animal welfare induction, training and programs
- participate in workplace and/or industry animal emergency training

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant animal welfare legislation, regulations and codes of practice
- basic requirements for ensuring the welfare of livestock described in the relevant Codes of Practice
- workplace and/or industry animal welfare procedures and animal emergency procedures
- workplace and/or industry procedures for reporting and recording animal welfare concerns, non-conformance and malpractice in the workplace

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK332 Monitor animals in intensive production systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor livestock in an intensive production system.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to beef cattle, dairy cattle, sheep, goats and pigs.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor animal health status	1.1 Source information on animal health programs from the livestock production plans 1.2 Assess animal health status by routinely inspecting each animal from induction to despatch by having unimpeded access and opportunity to observe behavioural characteristics, signs of ill-health and freedom of movement 1.3 Source information on past treatment(s) from the individual animal's identification tag or identification marking and enterprise records 1.4 Identify husbandry practices appropriate for the health status of the individual animal: follow-up observation, isolation from other livestock and/ or treatment
2. Identify animals requiring treatment	2.1 Identify individual animals with potential health issues or in ill health 2.2 Determine the type and severity of infection or injury and identify and/or isolate affected animals requiring treatment
3. Determine the type and scope of treatment	3.1 Determine the need for, type and scope of treatment by seeking expert or veterinary advice 3.2 Prepare equipment, materials and treatment site 3.4 Identify work health and safety hazards, assess risks and implement control measures in relation to the treatment 3.5 Record withholding periods and other details of treatment
4. Administer treatment	4.1 Check, select and use suitable personal protective equipment (PPE) 4.1 Handle and restrain animals safely and humanely 4.2 Administer treatment appropriately according to chemical label or veterinary advice 4.3 Identify treated animals from non-treated animals to ensure compliance with the required Withholding Period (WHP) 4.4 Prepare and move treated animals as planned
5. Carry out post-treatment procedures	5.1 Monitor animal health and condition post-treatment and report on animal's progress 5.2 Identify, environmental impacts associated with the administration of treatment, assess likely outcomes and take responsive action 5.3 Clean equipment and worksite, and dispose of organic and

Element	Performance criteria
	non-organic waste appropriately 5.4 Store unused medications appropriately 5.5 Complete documentation and records accurately and promptly 5.6 Comply with enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK332A Monitor animals in intensive production systems

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK332 Monitor animals in intensive production systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- monitor animal health status
- identify animals requiring treatment
- determine the type and scope of treatment
- identify work health and safety hazards, assess risks and implement control measures associated with administering treatments to animals
- handle, restrain and treat animals without compromising animal welfare
- monitor animals post treatment and complete workplace recording requirements
- implement relevant animal welfare and biosecurity policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- type of information to be gathered from livestock production plans, animal health plans and individual animal records
- signs of health, signs of ill health and methods of assessing livestock health
- biosecurity requirements, husbandry and management strategies and procedures for ill or injured animals
- methods for humane and safe handling and restrain of animals
- common diseases of the livestock species, and strategies for treatment and management of such diseases
- typical and common medications, vaccines, the routes of administration in animals and keeping/storage of such medications
- work health and safety requirements associated with administering treatments to animals

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- principles and regulations for veterinary medicines treatment and Withholding Periods in animals
 - environmental impacts of administering treatments to animals and strategies to mitigate these impacts
 - enterprise heat load management plans
 - types of and disposal methods for organic and non-organic waste
 - documentation and type of records that need to be completed for animal treatments

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK333 Monitor pen condition and ration suitability

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor the suitability of rations and pen conditions for livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Monitor ration and water levels	<p>1.1 Source information on ration ingredients and composition from enterprise livestock production and/or feed plans</p> <p>1.2 Assess ration levels, composition and consistency and identify potential production and health issues for different pens and classes of livestock</p> <p>1.3 Identify strategies for removing wet, mouldy and fouled ration from bunks, and preventing livestock from access to unsuitable rations</p> <p>1.4 Assess water quantity and quality to meet requirements of livestock</p>
2. Inspect pen status and condition	<p>2.1 Source information on pen group status from enterprise livestock production plan</p> <p>2.2 Assess pen infrastructure, feed bunks, feed apron and water troughs together with animal feeding behaviour and identify performance and potential issues</p> <p>2.3 Identify strategies to control leaking troughs, and prevent livestock from access to damaged pen or feeding areas</p> <p>2.4 Assess pen surface conditions and behaviours of livestock in consideration of prevailing weather conditions</p> <p>2.5 Identify strategies for adjusting stocking density, providing access to shade, modifying pen drainage, cleaning pen and modifying the ration</p>
3. Assess manure condition	<p>3.1 Assess manure consistency and colour as indicators of individual animal and herd health</p> <p>3.2 Identify strategies for increasing roughage in ration, courser processing of grains and adjusting rations for sick animals</p>
4. Check pen hygiene	<p>4.1 Assess feed bunks, feed aprons and water troughs for fouling and unhygienic build-ups of waste</p> <p>4.2 Identify strategies for resolving animal production and health issues, work health and safety concerns, and cleaning of pens to prevent odour and insect problems</p>
5. Report and record incidents as required	<p>5.1 Report incidents and problems to supervisor as required</p> <p>5.2 Record and monitor effectiveness of strategies adopted</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK333A Monitor pen condition and ration suitability

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK333 Monitor pen condition and ration suitability

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- monitor ration and water levels and respond to issues as required
- inspect pen status and condition and respond to issues as required
- assess manure condition and respond as required
- check pen hygiene and respond to issues as required
- report and record incidents
- communicate with work team and supervisors
- implement relevant work health and safety, biosecurity, animal welfare and environmental protection requirements and practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- type of information on rations, water, housing infrastructure and feeding infrastructure that can be gathered from livestock production and feeding plans
- principles and elements of nutrition and the impact of nutrition on livestock production
- nutritional requirements of different livestock species, classes and life stages
- impacts of poor nutrition and unsuitable rations on livestock production, and strategies to mitigate these impacts
- how rations can be adjusted or modified to benefit sick animals
- housing requirements and housing management of different livestock species, classes and life stages
- feeding and water requirements, and feeding and water management of different livestock species, classes and life stages

- impacts of unsuitable housing, feeding and watering infrastructure on livestock and strategies to mitigate these impacts
- effects of weather on housing and feeding infrastructure and strategies to mitigate such effects
- methods for using manure as assessment of livestock health
- methods for maintaining, cleaning and removing waste from housing and feeding infrastructure
- documentation, record keeping and methods for monitoring effectiveness of adopted strategies
- relevant work health and safety, biosecurity, animal welfare and environmental protection requirements and practices

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK334 Plan, prepare and conduct mulesing procedures

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to conduct the most efficient and humane mulesing procedure in circumstances where all alternative methods of breech flystrike prevention have been evaluated and mulesing is considered the most appropriate of these for the long-term welfare of the sheep.

This unit applies to sheep farmers and contractors in the livestock industry who normally operate under limited supervision.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Conduct pre-mulesing evaluations	1.1 Identify and comply with relevant State/Territory legislation, regulations and animal welfare standards and guidelines 1.2 Identify industry standards and guidelines 1.3 Seek expert advice and discuss alternative strategies to manage flystrike susceptibility prior to undertaking mulesing procedures 1.4 Confirm workplace requirements for use of mulesing 1.5 Conduct pre-operative evaluation of sheep 1.6 Assess risks associated with mulesing procedure and implement measures to control the risks such as using appropriate Personal Protective Equipment
2. Prepare for mulesing operations	2.1 Identify and order all required supplies and equipment in advance 2.2 Monitor weather conditions to determine optimal conditions for operation and recovery of sheep from the procedure 2.3 Select suitable time of day for operation to minimise the separation time of lambs and ewes 2.4 Engage adequate number of skilled workers 2.5 Select appropriate yards, paddocks and pastures for each mob and each day to allow adequate time for mothering up of lambs after separation from the ewes 2.6 Use appropriate procedures for mustering, movement and handling so that stress to sheep is kept to a minimum 2.7 Allow lambs to settle and cool after yarding
3. Select, maintain and use appropriate equipment	3.1 Maintain all equipment in clean, hygienic and working conditions to reduce the risk of infection and cross-infection in sheep 3.2 Maintain cradles to be used for mulesing in good working condition and can be operated to ensure minimal risk to the operator or lamb, especially when loading and unloading 3.3 Set, grind and sharpen mulesing shears to working standards 3.4 Disinfect mulesing shears after sharpening, before use and between each animal 3.5 Prepare wash-down, soaking and disinfecting containers for use 3.6 Prepare and test chemical application equipment to check for operational efficiency 3.7 Clean and disinfect all equipment at the end of operation and store appropriately to minimise contamination

Element	Performance criteria
4. Conduct mulesing procedures	4.1 Conduct all procedures in accordance with work health and safety, animal welfare and biosecurity requirements 4.2 Maintain a high standard of hygiene throughout the operation in relation to facilities, operators' hands, handling and equipment 4.3 Handle lambs calmly and use appropriate restraints such as cradles 4.4 Perform mulesing procedure in accordance with model code of practice and industry standards 4.5 Apply pain relief to the wound immediately after the procedure in accordance with industry standards and legislative requirements, and following label and Safety Data Sheet (SDS) instructions 4.6 Apply insecticide dressing to the surrounding intact wool bearing skin (not the wound) immediately after the procedure in accordance with industry standards and following label and SDS instructions 4.7 Continually evaluate wound symmetry, size and position, and breaks in selvage (muscle fascia) 4.8 Remove lambs from cradles so they land gently on all four feet
5. Conduct post-mulesing management procedures	5.1 Allow lambs, following release, to 'mother-up' to ewes as soon as possible 5.2 Provide immediate treatment for lambs that are abandoned or unable to stand or walk 5.3 Monitor lambs for abnormal signs such as infection and septicaemia 5.4 Maintain and update required documentation and records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK334A Plan, prepare and conduct mulesing procedures

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK334 Plan, prepare and conduct mulesing procedures

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess alternative strategies and confirm key indicators for the use of mulesing
- identify optimal conditions for carrying out mulesing procedures
- conduct pre-operative evaluation of lambs submitted for mulesing procedures and risk assessment in consultation with sheep manager
- prepare appropriate sites, facilities and equipment in line with infection control, work health and safety and animal welfare standards including pain management in accordance with industry best standards and legislative requirements
- follow low stress stock mustering, movement and handling procedures
- carry out mulesing operations in accordance with industry recognised best practice mulesing techniques and hygiene standards
- follow appropriate procedures and label directions to provide pain relief plus insecticide dressing as required
- monitor animals' behaviour post-mulesing for health and well-being including the ability to recognise signs of post-mulesing complications
- communicate post-mulesing management requirements to sheep manager
- accurately document and maintain appropriate records
- follow relevant work health and safety, animal welfare and biosecurity requirements and practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant work health and safety, animal welfare and biosecurity requirements
- relevant codes of practice and industry standards for mulesing

- reasons and requirements for mulesing in sheep
- body condition scoring (BCS), breech wrinkle scoring (BRWR) and breech cover scoring (BCOV) in lambs and adult sheep
- methods and strategies of flystrike control
- effects of weather, environmental, facility, flock, individual animal and human factors on mulesing operations
- use and maintenance of materials and equipment for mulesing
- principles and maintenance of hygiene in mulesing operations
- methods and techniques for handling and restraint of adult sheep and lambs
- use of pain relief and insecticide treatment in mulesing procedures
- anatomy and external features of sheep
- health and animal welfare implications of post mulesing complications in sheep
- signs of ill health and related management strategies in sheep
- use of and regulatory considerations for the use of disinfectants
- relevant care, husbandry and management strategies for sheep flocks
- relevant legislation, regulations and codes of practice, including those relating to work health and safety, animal welfare, veterinary practitioner/surgeons' Acts, stock diseases and waste disposal, agricultural and veterinary chemical use

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and a simulated environment that accurately reflects performance in a real workplace setting.

Assessments for the following performance evidence must be conducted on live animals:

- conduct mulesing procedures

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK335 Conduct dropped ovary technique procedures for spaying cattle

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan, prepare and conduct Dropped Ovary Technique (DOT) procedures for controlling fertility in females in extensive beef herds, where alternative options for the management of cull heifers and cows, other than spaying, have been evaluated but deemed unsuitable or unavailable.

This unit applies to cattle producers and contractors in the livestock industry who normally operate under limited supervision. It is essential that candidates who undertake this unit have at least one year's prior experience working with cattle.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit. Regulations in some States and Territories restrict the conduct of the DOT procedure to registered veterinarians. There is a direct link between this unit of competency and approval for lay operators to perform the DOT procedure in some State/Territory jurisdictions.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Conduct pre-DOT evaluations	<p>1.1 Identify and comply with relevant State/Territory legislation, regulations, codes of practice and animal welfare standards and guidelines</p> <p>1.2 Discuss alternatives to ovariectomy (spaying) with cattle manager and carefully consider them prior to undertaking DOT procedure</p> <p>1.3 Confirm pre-operative evaluation of cattle submitted for ovary dropping with cattle manager</p> <p>1.4 Identify and discuss risks associated with DOT procedure with cattle manager</p>
2. Prepare for DOT operations	<p>2.1 Monitor weather conditions to determine optimal conditions for operation</p> <p>2.2 Select time of day for operation to minimise animal stress</p> <p>2.3 Engage adequate numbers of skilled workers</p> <p>2.4 Select appropriate holding yards, forcing yards, race and settling yards</p> <p>2.5 Follow low-stress stock mustering, movement and handling procedures</p> <p>2.6 Allow cattle to settle and cool after yarding</p>
3. Select, maintain and use appropriate equipment	<p>3.1 Ensure all equipment is well-maintained and in a clean and hygienic condition to reduce the risk of infection and cross-infection</p> <p>3.2 Ensure cattle crush used for procedure is maintained in good working order and operated to ensure minimal risk to the operator and animal, especially when loading and unloading</p> <p>3.3 Prepare wash-down, soaking and disinfecting containers and position ready for use</p> <p>3.4 Prepare disinfectant solution in accordance with the label and Safety Data Sheet (SDS) directions</p> <p>3.5 Sharpen ovariator regularly and disinfect before use and between each procedure</p> <p>3.6 Clean and disinfect all equipment at the end of operations and store appropriately to minimise contamination</p>
4. Conduct DOT	4.1 Conduct all procedures in accordance with animal welfare

Element	Performance criteria
procedures	requirements, biosecurity requirements and work health and safety standards 4.2 Maintain a high standard of hygiene throughout the procedures in relation to facilities, hands, handling and equipment 4.3 Handle cattle quietly in the holding yards, forcing yards and race so that they are relatively calm when they reach the crush 4.4 Identify common DOT procedural impediments and plan remedial actions 4.5 Provide pain management in accordance with legislative requirements 4.6 Perform DOT procedures in accordance with industry best practice standards and processing rates 4.7 Apply identification earmarks or ear tags to cattle upon completion of procedures, in accordance with relevant State/Territory legislative requirements 4.8 Release and allow ovariectomised animals to settle on to feed and water in the settling yards for several hours, before moving them quietly to pasture
5. Carry out post DOT procedures	5.1 Record the identity of the cattle and date of the procedure, with details of significant observations where required 5.2 Inspect cattle regularly and with minimal disturbance for signs of post-operative complications during the healing process and take appropriate action where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK335A Conduct dropped ovary technique procedures for spaying cattle

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK335 Conduct dropped ovary technique procedures for spaying cattle

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess alternative strategies and confirm key indicators for the use of DOT procedures in consultation with cattle manager
- identify optimal conditions for carrying out DOT procedures
- conduct pre-operative evaluation of cattle submitted for ovary dropping and risk assessment in consultation with cattle manager
- comply with animal welfare legislation, animal welfare standards and guidelines, State and Territory veterinary surgeons' or practitioners' legislation and regulations and relevant codes of conduct
- prepare appropriate sites, facilities and equipment in line with infection control, work health and safety and animal welfare standards including pain management in accordance with legislative requirements
- follow low-stress stock mustering, movement and handling procedures
- carry out DOT procedures in accordance with industry recognised best practice DOT procedure and processing rates, implement remedial actions and hygiene standards
- communicate post-spay management requirements to cattle manager
- accurately document and maintain appropriate records
- follow relevant biosecurity requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- alternative options available to control fertility in cattle
- animal welfare and biosecurity requirements for the use of DOT in cattle
- anatomy and reproductive features of cattle

- body condition scoring of cattle
- relevant cattle nutrition and husbandry requirements for the specific cattle management system
- industry recognised best practice DOT procedure and processing rates
- use of, and regulatory considerations for the use of disinfectants
- health and animal welfare implications of post-operative complications of the use of DOT in cattle
- animal welfare legislation, animal welfare standards and guidelines, State and Territory veterinary surgeons' or practitioners' legislation and regulations and relevant codes of conduct as they apply to DOT
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace OR the workplace and a simulated environment that accurately reflects performance in a real workplace setting.

Assessments for performance evidence must be conducted in an on-farm workplace situation with access to appropriate female cattle, facilities and equipment.

Assessment for the following performance evidence must be conducted on live animals:

- conduct DOT procedures

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK401 Develop feeding plans for a production system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop feeding plans for a production system.

This unit applies to supervisors and unit managers who are responsible for nutrition and feeding in an intensive livestock production facility.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select ingredients for feed	1.1 Identify nutritional needs of livestock from information available and class of livestock 1.2 Source nutritional advice from the appropriate industry or organisational sources 1.3 Select ingredients that provide for the identified nutritional need of livestock 1.4 Select suppliers of ingredients on the basis of quality and cost of feed 1.5 Determine quantities of individual ingredients required, in conjunction with advice from other available information and expert/supplier advice
2. Determine feed rations and schedules	2.1 Determine quantities of total feeds required for livestock from the production program, in conjunction with advice from other available information and expert advice 2.2 Take into consideration the results of any available laboratory testing when determining the quantities of each ingredient used 2.3 Schedule feeding and allocate responsibility for feeding in line with the production program and other operations occurring within the site 2.4 Identify the method(s) of providing feed to livestock identified in the production plan and confirm with supplier of ingredients and other expert advice
3. Supervise mixing and storage of feed	3.1 Organise secure and hygienic storage of feed and ingredients to eliminate contamination and infestation 3.2 Select storage location to ensure safe access 3.3 Organise rotation of feedstocks and replacements to arrive at the appropriate time to ensure optimum freshness 3.4 Organise mixing of feed to suit the needs of the livestock, the identified nutritional requirements and the equipment available within the organisation 3.5 Add medications to feeds according to enterprise procedures if required 3.6 Take, package and label samples of feed and forward them to the laboratory for testing according to the schedules described in the production program 3.7 Check calibration of measuring equipment and calculation of quantities at regular intervals

Element	Performance criteria
	3.8 Identify work health and safety hazards, assess risks, and implement, monitor and review risk controls for feed preparation and feeding operations 3.9 Comply with enterprise biosecurity policies
4. Supervise feeding	4.1 Supply rations to the livestock according to the production program and schedules devised 4.2 Make potable water available continuously to the livestock 4.3 Monitor the health and wellbeing of the livestock in line with enterprise requirements and animal welfare policies 4.4 Monitor and report any change in production levels as a direct result of changes to feed types, ingredients or schedules 4.5 Give advice to operational staff during the feeding operation when requested, or when the need is observed 4.6 Remove all waste materials and substances from the site and store, or disposed of, according to legislation, environmental policies and enterprise procedures 4.7 Collate and store documentation according to the requirements of the organisation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK401A Develop feeding plans for a production system

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK401 Develop feeding plans for a production system

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work practices
- discuss feed and nutritional content with nutritionist and managers
- identify a range of raw ingredients
- operate a range of feeding equipment
- perform basic troubleshooting of the feeding operation
- monitor animal intake and performance
- read and interpret manufacturers specifications, work and maintenance plans, and Safety Data Sheets (SDSs)
- interpret and apply task instructions, communicate with work team and supervisor, and record and report faults, workplace hazards and accidents
- accurately measure and calculate volumes, consumption and storage requirements
- complete the required records of feed use and livestock performance
- comply with enterprise biosecurity, environmental and animal welfare procedures and policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- control of common livestock diseases and preventative measures including the placement of medications in feed
- growth and development in livestock
- milling systems
- dietary needs and analysis of feed samples
- organisations sampling requirements and techniques

- where to access appropriate legislative requirements, manufacturers instructions and enterprise procedures/instructions
- silo operations and configuration, machinery and operating practices
- codes of practice and enterprise policies with regard to work health and safety, biosecurity, environment and animal welfare
- cleaning and storage of machinery, equipment and materials
- enterprise recording and reporting procedures

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK402 Develop livestock feeding plans

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop livestock feeding plans.

This unit applies to managers of grazing operations who design and develop feeding plans for livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine nutritional requirements for livestock	1.1 Determine nutritional value of pasture and feedstuffs 1.2 Identify and assess livestock production status according to enterprise requirements 1.3 Determine essential requirements for livestock nutrition according to assessed livestock condition
2. Assess pasture feed	2.1 Determine grazing management strategy to ensure the sustainable stocking capacity of pasture 2.2 Monitor pasture for quantity and quality to ensure continual and consistent supply of nutrients to livestock 2.3 Monitor and assess pasture intake according to identified nutritional requirements of livestock
3. Determine supplementary feeding program	3.1 Determine economic basis to supplementary feeding according to enterprise requirements 3.2 Identify and determine types of supplementary feed for all classes of livestock 3.3 Determine supplementary feeding program to fill the pasture shortfall for predicted pasture growth
4. Develop livestock feeding plan	4.1 Develop and review feeding plan to ensure it remains responsive to changing conditions 4.2 Identify and carry out suitable feed conservation methods or fodder sources in preparation for abnormal conditions 4.3 Select a system of feeding that supplies the appropriate amount of feed to the herd/flock to meet condition and growth needs, and that meets production requirements of the business 4.4 Prepare a feed budget according to the selected system of feeding 4.5 Document data for continual assessment and effective management planning

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK402A Develop livestock feeding plans

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK402 Develop livestock feeding plans

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research predicted seasonal pasture production for the area
- estimate the feed value of a standing pasture at different times of the year
- calculate the feed demand for different types of livestock and production phases
- match feed supply and demand
- assess feeding plan alternatives
- develop and document a feeding plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- nutritional and daily energy requirements of livestock
- water quality and livestock tolerances
- nutritional value of different feedstuffs
- assessment procedures to ascertain livestock condition
- methods of assessing pastures quality and quantity
- pasture livestock carrying capacity
- supplementary feeding strategies
- change in nutritional requirements during late pregnancy and lactation

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK404 Implement and monitor animal welfare programs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement and monitor animal welfare programs.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They may provide direction to others, and use discretion and judgement in the selection, allocation and use of available resources. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Provide information about animal welfare to the team	1.1 Explain the relevant provisions of animal welfare regulations and codes of practice to the work group 1.2 Provide information on workplace animal welfare policies, procedures and programs in a readily accessible manner 1.3 Provide information about identified animal welfare requirements to the group and individuals in a broad workplace context and in the context of the individuals' job roles
2. Facilitate the participation of workers in animal welfare compliance	2.1 Implement and monitor workplace procedures for compliance with animal welfare procedures 2.2 Explain procedures for reporting animal welfare concerns, grievances and complaints to workers, and action that will be taken to address these concerns, grievances and complaints 2.3 Manage and resolve animal welfare concerns, grievances and complaints according to workplace procedures, or refer to the appropriate personnel where necessary
3. Implement and monitor workplace animal welfare procedures	3.1 Report existing and potential animal welfare concerns, and take action to address these concerns according to workplace procedures 3.2 Maintain detailed records of animal welfare concerns, grievances and complaints, and actions taken 3.3 Monitor implementation of workplace animal welfare procedures to ensure ongoing adherence to and effectiveness of these procedures
4. Implement workplace procedures for dealing with animal welfare emergencies	4.1 Implement workplace procedures for dealing with animal welfare emergencies 4.2 Record and report animal welfare emergencies to workplace management or relevant authorities 4.3 Implement measures to prevent recurrence and minimise risk of animal welfare emergencies
5. Implement and monitor workplace procedures for providing animal welfare training	5.1 Identify animal welfare induction and training needs 5.2 Implement both on and off-the-job animal welfare induction and training for work group

Element	Performance criteria
6. Implement and monitor workplace procedures for maintaining animal welfare records	6.1 Implement and monitor procedures to maintain animal welfare records 6.2 Use aggregate information from animal welfare records to implement animal welfare programs

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK404A Implement and monitor animal welfare programs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK404 Implement and monitor animal welfare programs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- provide information about animal welfare to the work group and individuals in the workplace
- facilitate the participation of workers in animal welfare compliance
- implement and monitor workplace procedures for animal welfare
- implement workplace procedures for animal welfare emergencies
- implement and monitor staff training in animal welfare
- maintain animal welfare records
- implement relevant work health safety animal welfare and biosecurity requirements and practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant animal welfare legislation, regulations, codes of practice and guidelines including:
 - Australian Animal Welfare Strategy
 - Animal Welfare Act or Prevention of Cruelty to Animals Act or equivalent specific to the State or Territory
 - Australian Standards and Model Codes of Practice specific to the livestock or industry sector
 - industry requirements and standards for animal welfare for the animal species
- animal welfare emergencies procedures for:
 - animal disease or injury
 - damage to facilities where animals are housed

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- animals which have escaped from the normal control of the workplace
 - road accidents when moving and transporting animals
 - inclement weather - flooding, strong wind, lightning, storm, extreme temperatures
 - fire
 - power failure
 - water or feed failure or contamination
 - need for animal welfare in the workplace
 - requirements for ensuring the welfare of livestock described in the relevant codes of practice
 - workplace policies, procedures, guidelines and standard operating procedures relating to animal welfare
 - relevant work health safety animal welfare and biosecurity requirements and practices in the context of animal welfare

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK405 Implement intensive production systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement intensive production systems.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for production	1.1 Identify and obtain documents within the enterprise that detail the

Element	Performance criteria
operations	<p>requirements of the production program</p> <p>1.2 Assess and calculate the resources required for the production operations from the product to be produced, the available timelines, the available resources, and the types of housing and feeding infrastructure</p> <p>1.3 Determine measurable indicators, specifications and targets based on the production program and type of housing and feeding infrastructure</p> <p>1.4 Hold discussions with operational personnel and immediate management to discuss the production program</p> <p>1.5 Identify, seek and obtain approvals that are required for the production operations</p>
2. Communicate production program and complete administration activities	<p>2.1 Co-ordinate, schedule and communicate regularly with people, materials and equipment required for the operations according to the prepared plan to ensure smooth operation and progress</p> <p>2.2 Identify work health and safety hazards, assess risks and take responsive action throughout the production operations</p> <p>2.3 Communicate clearly to operational personnel the procedures and tools to be used, personal protective equipment to be used/worn, types of records to be kept, work health and safety hazards that have been identified, and actions to be taken to mitigate the work health and safety risks, and seek confirmation of the communication from the operational personnel</p> <p>2.4 Promptly and accurately complete documentation and records</p> <p>2.5 Provide advice to operational staff and contractors during the production operations when requested, or when the need arises</p>
3. Manage livestock and production environment	<p>3.1 Monitor herd/flock regularly for signs of ill health or injuries and record and report observations</p> <p>3.2 Monitor housing and feeding infrastructure regularly for signs of damage, wear and tear, and record and report observations</p> <p>3.3 Supervise examination of dead livestock for evidence of disease through correct post-mortem techniques and seek veterinary advice if required</p> <p>3.4 Assess and evaluate disease status of livestock, notify or report to appropriate personnel and seek veterinary assistance if required</p> <p>3.5 Monitor components of quarantine procedures regularly to ensure compliance with regulatory and industry standards</p> <p>3.6 Monitor and adjust aspects of the production system environment in line with the production program</p>
4. Manage effluent and waste	<p>4.1 Monitor effluent storage and disposal systems according to production program and manufacturer instructions</p>

Element	Performance criteria
	4.2 Calculate, monitor and document volume and type of effluent 4.3 Monitor the removal of all waste and debris from the production environment 4.4 Carry out ongoing production environment maintenance program throughout all seasons 4.5 Monitor and report on the regulatory and legislative requirements associated with the production program
5. Monitor and adjust production operations	5.1 Ensure monitoring of components specified in the production plan is adhered to 5.2 Make checks to ensure that work health and safety requirements are being observed and followed 5.3 Make checks to ensure that environment regulatory requirements are being observed and followed 5.4 Communicate with operational staff and contractors regularly to ensure smooth operation and progress 5.5 Make checks to ensure that all documentation and records required by regulatory agencies, industry and enterprise are completed clearly, promptly and accurately 5.6 Take corrective action promptly when required 5.7 Collate and store documentation and records appropriately 5.8 Prepare recommendations for future production programs based on the conduct of the operations, the data collected and the discussions with enterprise staff and contractors 5.9 Report on the progress and key aspects of the production operations and throughput to enterprise

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK405A Implement intensive production systems

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK405 Implement intensive production systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine measurable indicators, specifications and targets for the intensive enterprise assess the resources required for unit operations
- establish processes/strategies, procedure and controls to meet quality assurance requirements and production targets
- communicate production program to relevant personnel and complete administration activities
- manage livestock and the production environment
- implement quarantine procedures and monitor disease status of stock
- manage effluent and waste generated by production operations
- monitor and adjust production system for output, QA compliance, costs and profitability.
- prepare recommendations for future production programs based on the conduct of the operations, the data collected and the discussions with enterprise staff and contractors
- implement relevant work health and safety, biosecurity, animal welfare and environmental requirements and practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- type and use of information that can be gathered from enterprise programs, documents and records
- types of resources required, types of products, methods for assessing and calculating resources and products by using information from enterprise programs, documents and records

- type of measurable indicators, specifications and targets for the production system using information from enterprise programs, documents and records
- functions, parameters and scope of enterprise production programs and production plans
- relevant regulatory, industry and enterprise approvals, licences, authorities, documentation, records and reporting requirements for enterprise production operations
- manpower, materials and equipment requirements for carrying out effective and efficient enterprise production operations
- relevant work health and safety requirements
- signs of health, signs of ill health and methods of assessing livestock health
- types and functions of housing and feeding infrastructure relevant to the enterprise production operations and methods for assessing damage, wear and tear to infrastructure
- techniques, procedures and requirements for post-mortem examination of livestock carcasses
- common diseases of livestock, and methods for assessing and evaluating disease status
- relevant biosecurity requirements, quarantine requirements, functions, components and facilities required of an enterprise quarantine system
- regulatory and industry requirements for effluent storage and disposal, types and functions of effluent storage and disposal systems, and methods for assessing and calculating effluent production
- regulatory and industry requirements, methods and systems for waste and debris storage and disposal
- relevant environment requirements and sustainability practices
- functions and aspects of production environment maintenance programs
- relevant animal welfare requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK406 Oversee animal marking operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to oversee animal marking operations.

This unit applies to livestock producers and those with supervisory responsibilities within livestock production enterprises.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare marking plan	1.1 Obtain and clarify information and instructions with regard to marking operations 1.2 Ensure timing of marking and calendar of operations fit so that growth checks are minimised 1.3 Determine animal groupings, marking operations and sequencing 1.4 Assess and determine resource requirements within enterprise budgetary constraints 1.5 Prepare marking plan and ensure sufficient flexibility to adapt to changes during marking operations
2. Co-ordinate and arrange resources	2.1 Locate and arrange suitable locations for undertaking marking operations and facilities to meet requirements of marking schedules 2.2 Arrange and provide appropriate and adequate equipment, materials and health treatments on site 2.3 Confirm staff and provide them with safety, task and operational briefings 2.4 Identify work health and safety hazards, assess risks, and implement, monitor and review risk controls in line with enterprise policies 2.5 Time and supervise marking operations to ensure mistreatment is minimised and animal welfare requirements are met
3. Monitor marking operation	3.1 Monitor implementation of marking plan for efficiency and effectiveness in terms of achieving enterprise objectives 3.2 Monitor condition and health status of animals, take appropriate action to rectify risks to animal welfare, and report abnormalities where necessary 3.3 Maintain effective worksite communication to ensure efficient workflow and address immediate problems 3.4 Document data with regard to operational processes and outcomes for continual assessment and management planning

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK406A Oversee animal marking operations

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK406 Oversee animal marking operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards, assess risks and implement and monitor of safe operating procedures
- plan, cost and schedule resource requirements
- prepare and implement a work plan for marking
- prioritise and schedule marking operations
- determine and allocate staff roles and responsibilities
- monitor the health and well-being of animals during and after marking
- manage staff and operations and establish and monitor performance targets
- document and prepare plans and reports for the understanding of staff and management
- implement and monitor relevant animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- management processes and procedures
- cost analysis techniques
- procedures for planning and developing marking plans
- marking and production plans
- codes of practice with regard to animal marking and animal health and welfare
- use of veterinary medicines and their administration
- animal marking methods and procedures
- work health and safety and animal welfare legislation, codes of practice and enterprise requirements
- animal behaviour and nutritional requirements

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK407 Plan and monitor intensive production systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and monitor intensive production systems.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Source information for	1.1 Consult livestock production plan for details of current period

Element	Performance criteria
input to production system planning	planning, enterprise requirements and market expectations 1.2 Analyse key production data to establish unit performance 1.3 Access and analyse information regarding the characteristics of the herd/flock under production 1.4 Access and analyse regulatory, industry and enterprise requirements that impact on the production system 1.5 Access and analyse market information regarding quality, standards and trends for input to the planning process
2. Plan for production	2.1 Determine target unit performance through a comparison with industry and enterprise standards 2.2 Establish and confirm production targets using data and information from unit's livestock production 2.3 Determine resources required to achieve production targets in terms of personnel, equipment and materials 2.4 Organise and engage staff and contractors to suit the production plan and its targets 2.5 Select and order other resources according to enterprise guidelines
3. Plan for animals' needs, environmental and effluent management to ensure welfare of animals and achieve production targets	3.1 Assess and calculate housing, effluent management, environmental management and biosecurity requirements from livestock numbers, market requirements and regulatory requirements 3.2 Evaluate construction and equipment system options and select the best option 3.3 Select materials chosen for construction according to animal welfare needs, cost and efficiency 3.4 Determine aspects of the production environment according to animals' welfare needs, efficiency of systems and market expectations 3.5 Select animal feed based on animal production, the size of the herd/flock, and the suitability of available feed products
4. Determine scheduling and key responsibilities	4.1 Determine scheduling for the production plan taking the range of seasonal, geographic and resourcing factors into consideration 4.2 Determine key responsibilities for specific implementation processes 4.3 Determine documentation and record keeping requirements and put procedures in place to ensure compliance with the range of applicable regulations 4.4 Ensure the production plan, including scheduling and key responsibilities, is clearly documented 4.5 Ensure the production plan includes the type, format, frequency

Element	Performance criteria
	and detail of all reporting requirements by managers and operators
5. Monitor and adjust production plan strategies	5.1 Evaluate the effectiveness of the production plan at key points and make adjustments as necessary 5.2 Identify, monitor and assess environmental impacts and work health and safety hazards relating to the production plan throughout the implementation process 5.3 Make modifications to the production plan as and when necessary

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK407A Plan and monitor intensive production systems

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK407 Plan and monitor intensive production systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- analyse key production data, herd/flock information and market requirements
- set production targets and identify resources needed to achieve them
- plan accommodation that meets animal welfare and production requirements
- develop feeding plans and evaluate alternatives for feed purchasing, milling and distribution
- determine work responsibilities and staffing requirements
- handle waste and effluent in line with environmental requirements and legislation
- monitor, review and adjust intensive production plans
- implement relevant work health and safety requirements
- implement relevant biosecurity, animal welfare and environmental management requirements and practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- functions, parameters and scope of production plans
- type and use of information from enterprise production plans and enterprise production data that can be used to formulate production system planning and production unit performance targets
- type and use of information on herd/flock characteristics; regulatory, industry and enterprise requirements; industry and enterprise standards and benchmarks; market specifications for product qualities, product standards and market trends; production unit's history and data, for the formulation of the production system plan and performance targets

- types, quantities, assessment and calculation, procurement and selection of manpower, material, equipment and other resources required for the production plan
- types and functions of, and methods for assessing and calculating requirements of, housing, effluent management and environmental management infrastructure
- efficiency and cost benefit ratios of different types of housing, effluent management and environmental effluent infrastructure and systems, taking into account animal welfare requirements and enterprise production targets
- types, functions and cost benefit ratios of livestock feeds
- relevant aspects and impacts of production cycles and staff job roles on production planning
- relevant regulatory, industry and enterprise documentation, records and reporting requirements for implementation of production plans
- methods for assessing and evaluating production plans
- relevant work health and safety requirements
- relevant environmental requirements and sustainability practices
- relevant biosecurity requirements
- relevant animal welfare practices

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK408 Pregnancy test animals

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out pregnancy testing in livestock.

This unit can be delivered in the context of the following industries: cattle and horses.

This unit does not cover ultrasound scanning for pregnancy diagnosis.

This unit applies to those whose job role includes testing animals for pregnancy using manual diagnosis procedures. Veterinary advice may need to be sought in some cases where pregnancy symptoms are difficult to detect, or animals are to be identified as pregnant for sale.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for pregnancy testing	1.1 Prepare physical resources, human resources and relevant documentation for pregnancy testing 1.2 Muster, yard and safely restrain animals in compliance with work health and safety, animal welfare and workplace procedures 1.3 Draft animals to be tested according to breeding or management program requirements
2. Arrange support for pregnancy testing	2.1 Assemble pregnancy testing supplies and equipment for the operators 2.2 Separate and restrain individual animals for veterinary treatment or examination 2.3 Undertake all handling and testing of animals with strict adherence to animal welfare codes of practice 2.4 Complete records of pregnancy testing operations in line with established procedures and report outcomes to management as required
3. Carry out manual pregnancy diagnosis procedures	3.1 Identify work health and safety hazards, assess risks and implement suitable controls while working with animals 3.2 Fit and use personal protective equipment in compliance with biosecurity and personal hygiene requirements 3.3 Humanely restrain individual animals for testing and check individual breeding records 3.4 Clean rectal area of animal prior to examination 3.5 Humanely and safely carry out rectal examination/palpation to establish pregnancy or non-pregnancy 3.6 Implement strict hygiene procedures between pregnancy testing individual animals in compliance with animal welfare and biosecurity requirements 3.7 Record identities and relevant details of animals tested 3.8 Observe and record other indicators of animal health for input to

Element	Performance criteria
	herd health management
4. Carry out post pregnancy testing procedures	4.1 Accurately identify animals diagnosed as pregnant or not pregnant 4.2 Consign all animals to their destination or return them to paddocks/pens in line with workplace requirements 4.3 Dispose of biological waste, debris and veterinary medicine waste in compliance with work health and safety, biosecurity and environmental requirements 4.4 Carry out regular monitoring of animals post pregnancy testing to detect post-testing complications

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK408A Pregnancy test animals

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK408 Pregnancy test animals

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan and prepare for pregnancy testing coordinate and arrange support for pregnancy testing
- arrange support for pregnancy testing
- draft animals and source information on joining to assist in pregnancy testing
- restrain animals for pregnancy testing using humane methods and facilities
- carry out manual pregnancy diagnosis procedures in adherence with animal welfare codes
- monitor animals after pregnancy testing
- maintain records of pregnancy testing
- apply relevant animal welfare requirements
- implement relevant work health and safety animal welfare and biosecurity requirements and practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant anatomy and physiology of the animal species
- reproductive physiology and pregnancy development of the animal species
- husbandry and management strategies for pregnant and non-pregnant animals
- pregnancy testing methods
- reproductive diseases and complications in the animal species
- relevant work health and safety, animal welfare and biosecurity legislation, codes of practice and industry and enterprise policies
- recording and reporting systems used in conjunction with pregnancy diagnosis and animal breeding programs.

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessments for the following performance evidence must be conducted on live animals:

- carry out pregnancy diagnosis procedures

Competency in this unit can be determined in a single species.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK409 Supervise animal health programs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise animal health programs.

This unit applies to managers of animal production enterprises and covers the process of implementing and monitoring animal health programs.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor and assess animal health	1.1 Conduct regular observations to assess animals' health 1.2 Recognise and report symptoms of ill health and common diseases or parasite infestations 1.3 Carry out sampling and arrange testing for internal parasites or diseases where required 1.4 Refer unusual or suspected exotic disease outbreaks for veterinary advice in line with biosecurity legislation and enterprise policies 1.5 Report notifiable diseases and comply with all restrictions and treatment requirements 1.6 Record animal health status 1.7 Identify work health and safety hazards, assess risks and implement and monitor suitable controls 1.8 Select, use and maintain appropriate hygiene measures and suitable personal protective equipment (PPE) 1.9 Monitor and record animal welfare status in line with enterprise and legislative requirements 1.10 Dispose of deceased animals according to environmental policies
2. Implement preventative health strategies	2.1 Identify risks to animal health, and source strategies, from the production plan, relevant expert or specialist consultant where applicable 2.2 Develop and implement a vaccination program to control clostridial and other diseases 2.3 Identify livestock prone to internal parasite build up and plan out the timing of treatments 2.4 Implement or research pest and disease control strategies based around pasture spelling and rotations of different classes of livestock 2.5 Plan the health treatments for animals using an integrated approach 2.6 Use drenches, vaccines and other stock medications according to manufacturer instructions and comply with withholding periods 2.7 Rotate drench groups to minimise the risk of parasite resistance
3. Record and review the animal health program	3.1 Record all treatments and maintain an inventory of stock medicines 3.2 Record health issues and record the results of tissue, organ and blood samples if applicable

Element	Performance criteria
	3.3 Use records of health tests and animal health treatments, including animal production records, to review the animal health plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK409A Supervise animal health programs

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK409 Supervise animal health programs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards, assess risks and implement and monitor safe work practices and appropriate hygiene procedures
- monitor the health and wellbeing of animals
- detect possibility of disease through parameters such as loss of bodyweight behaviour or length of time required to eat food
- recognise clinical symptoms (normal vs. abnormal)
- recognise abnormal physiological and behavioural signs in livestock
- collect samples for testing for internal parasites and diseases
- implement preventative health strategies
- administer vaccines and medications to animals
- maintain records associated with animal health programs
- implement relevant biosecurity and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- symptoms of common livestock diseases and parasite infestations
- storage conditions for a range of chemicals, including veterinary chemicals
- types of vaccines and how they work
- zoonotic diseases and their mode of transmission
- animal anatomy and physiology relevant to the collection of tissue, organ, blood and other biological samples in live and dead animals and the conduct of post-mortems
- relevant biosecurity requirements

- management practices and processes to minimise noise, odours, and debris from the livestock operations
- relevant legislation, regulations and codes of practice relating to the use of veterinary medicines, animal diseases, animal welfare and waste and environmental management,
- relevant work health and safety legislation, regulations and codes of practice

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK410 Supervise feedlot operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise feedlot operations.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Select feedlot livestock	1.1 Consult enterprise plans and management regarding the breeds, classes and numbers of livestock to be obtained for feedlotting 1.2 Select and purchase livestock for feedlotting 1.3 Inspect purchased livestock on delivery for satisfactory health and condition 1.4 Complete required documentation and records accurately and promptly, and store these appropriately
2. Oversee the preparation of rations for feedlot livestock	2.1 Identify nutritional needs of livestock from information available and enterprise production targets 2.2 Gather expert advice on livestock nutrition from the appropriate government, industry or enterprise sources 2.3 Select feed ingredients that meet the identified nutritional needs of livestock 2.4 Select suppliers of feed ingredients based on quality and cost benefit ratios 2.5 Determine quantities of feed ingredients required based on available information and advice 2.6 Formulate feeding schedule and allocate responsibility for feeding livestock to appropriate personnel 2.7 Assess and identify method(s) of feeding livestock based on available information and advice
3. Supervise feeding of feedlot livestock	3.1 Organise mixing of feed to suit the needs of the livestock, the identified nutritional requirements, and the equipment available within the enterprise 3.2 Supervise calibration of measuring equipment and calculation of feed ingredient quantities 3.3 Supervise the selection, maintenance and use of suitable personal protective equipment 3.4 Identify work health and safety hazards, assess risks and implement control measures 3.5 Supervise the feeding of livestock according to production program
4. Monitor performance of feedlot livestock	4.1 Monitor the health and condition of livestock and their production levels; record and report any reaction or change to a change in feed types, ingredients or schedules 4.2 Provide advice to enterprise staff on the feeding of livestock when requested, or when the need arises 4.3 Supervise the storage, removal and disposal of all feed wastes and debris from the production environment 4.4 Supervise the dispatch of livestock for slaughter with required identification and documentation

Element	Performance criteria
	4.5 Collate and analyse feedback from slaughter point and downstream customers 4.6 Maintain and store documentation and records appropriately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK410A Supervise feedlot operations

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK410 Supervise feedlot operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select, purchase and induct livestock for feedlotting according to enterprise requirements
- source advice on feed and feeding regime with nutritionist and managers
- oversee the preparation of rations for feedlot livestock
- supervise feeding of feedlot livestock and provide advice to staff where required
- monitor livestock performance on weight gains and meeting carcass criteria and diagnose feeding problems and remove animals for treatment
- review procedures in response to feedback from slaughter point and customers
- complete the required records of feed use and livestock performance
- implement relevant work health and safety, animal welfare, biosecurity and environmental management requirements and practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types and use of information to be gathered from enterprise plans and management for the determination of suitable feedlot livestock to be procured
- breeds, classes and characteristics of feedlot livestock
- criteria for assessment and selection of feedlot livestock
- regulatory, industry and enterprise requirements and procedures for purchase, delivery and movement of feedlot livestock.
- principles of nutrition, feeding strategies and feeding management of feedlot livestock
- types, characteristics and quality assessments of feed ingredients, and the methods for assessing their nutritional value in meeting the needs of feedlot livestock
- types, forms and characteristics of livestock feeds

- process and requirements of a cost benefit analysis
- procedures and resource requirements for mixing, blending and milling feed ingredients and feeds
- relevant work health and safety requirements
- signs of health, ill health, good condition and poor condition in livestock, and methods for assessing livestock health and condition in relation to nutrition and feeding
- possible production changes in relation to changes in nutrition, feeds and feeding strategies
- types of and disposal methods for organic and non-organic waste
- relevant environmental requirements and sustainability practices
- regulatory, industry and enterprise requirements for selection, movement and dispatch of livestock for slaughter
- types and use of information that can be gathered from slaughter facilities and downstream customers to formulate, improve or adjust nutritional and feeding strategies for feedlot livestock
- relevant animal welfare and biosecurity requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK411 Supervise natural mating of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise the natural mating of livestock.

This unit applies to livestock producers and those with supervisory responsibilities within pastoral production enterprises.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare animals for breeding	1.1 Access and confirm requirements of enterprise breeding program and relevant animal data 1.2 Identify work health and safety hazards, assess risks, and implement, monitor and review risk controls in line with enterprise policies 1.3 Identify and prepare joining areas using a range of selection factors 1.4 Handle animals safely and humanely to minimise stress and discomfort and in line with industry and enterprise animal welfare requirements 1.5 Draft animals according to mating plan and in appropriate ratios to encourage optimum mating 1.6 Determine and meet sire requirements in advance of mating 1.7 Prepare and examine animals for mating
2. Implement breeding program and monitor mating	2.1 Access veterinary advice according to animal's needs, enterprise requirements and industry practice 2.2 Identify and schedule dates and timing of breeding 2.3 Carry out physical examination of animals to evaluate health and welfare status of animals 2.4 Observe behaviour of animals during joining to identify necessity of intervention and assistance 2.5 Provide assistance as required
3. Complete breeding program	3.1 Remove sires from herd, mob or flock where required 3.2 Monitor mating activity to ensure successful joinings have occurred, to identify problems and to effect remedial action as required 3.3 Arrange for pregnancy testing to determine the effectiveness of joining 3.4 Record and document data to develop history of mating performance and outcomes 3.5 Research industry information of emerging and prevailing practices and compare with enterprise practice to recommend future improvements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK411A Supervise natural mating of livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK411 Supervise natural mating of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards, assess risks and implement and monitor of safe operating procedures
- carry out physical examination of sires and females for health and breeding soundness
- prepare animals for joining
- monitor joining activity and returns to oestrus
- access, interpret and record data associated with mating program
- implement relevant animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- mating behaviour
- anatomy and physiology of the reproductive organs and reproductive process in animals
- required live weights and conditions for mating
- environmental influences and their effects on joining
- ovulation stimulation and synchronisation
- enterprise's breeding programs and selection criteria (EBV & ASBV)
- pregnancy testing/ scanning procedures
- animal health and abnormalities
- relevant State/Territory legislation, regulations and Codes of Practice with regard to work health and safety and animal welfare
- enterprise and industry policies with regard to recording and reporting requirements
- identification of veterinary and non-veterinary procedures

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK412 Arrange livestock purchases

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to arrange livestock purchases.

This unit applies to livestock producers.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Identify purchasing opportunities	1.1 Identify and confirm number, type and breed of livestock to be purchased 1.2 Research and review agents and sellers of livestock to determine appropriate sources 1.3 Monitor and identify sales schedules for livestock types 1.4 Research and evaluate purchasing prices to identify comparative values between sellers and agents
2. Inspect livestock condition	2.1 Check health status of livestock using accepted methods 2.2 Obtain and verify records and documents relating to livestock histories 2.3 Assess suitability of livestock for purchasing purposes 2.4 Assess prices against livestock condition and enterprise requirements to identify appropriate purchasing values
3. Complete documentation	3.1 Source and complete insurance requirements for livestock 3.2 Confirm purchases at current market price levels according to estimated livestock values 3.3 Ensure accuracy of documentation details and exchange promptly with seller
4. Organise transportation	4.1 Identify carriers appropriate to livestock type and quantity and engage them on suitable terms 4.2 Identify work health and safety hazards associated with livestock handling and transport assess risks, and implement, risk controls in line with enterprise policies 4.3 Arrange timing and dates of transportation and delivery with transporter, vendors and agents 4.4 Assess special needs of livestock and prepare facilities to ensure timely pick up 4.5 Undertake animal health and welfare checks on arrival according to enterprise and legislative requirements 4.6 Where required quarantine animals in line with enterprise policies 4.7 Complete records associated with livestock movements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK412A Arrange livestock purchases

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK412 Arrange livestock purchases

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research livestock price trends and budgeted returns
- organise transport
- negotiate on price and terms
- assess livestock and condition
- arrange transport and insurance
- check on health status and condition of livestock
- complete records associated with livestock transport
- implement relevant quarantine/biosecurity practices where required
- implement relevant work health and safety requirements
- implement relevant animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- livestock assessment for relevant features / traits
- livestock selling procedures
- matching livestock to feed available
- livestock transportation
- animal health procedures
- livestock insurance
- relevant legislative work health and safety requirements especially as they relate to livestock sales, livestock products, animal welfare, animal transportation for local and export markets, and safe livestock handling techniques

- enterprise and industry policies and codes of practice with regard to livestock sales, livestock transportation, and recording and reporting requirements (NLIS)

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK413 Design livestock handling facilities

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design livestock handling facilities.

This unit applies to those whose job role includes planning and designing handling and/or accommodation facilities for livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupation licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine requirements	1.1 Assess and clarify requirements for livestock handling facilities 1.2 Negotiate and confirm cost structures and timelines within enterprise budgetary constraints 1.3 Obtain and assess plans for livestock handling facilities from a variety of sources
2. Undertake a site analysis	2.1 Inspect location of new or existing site and record physical elements and features of the site for assessment of suitability 2.2 Specify surveys to be undertaken and determine tolerances according to enterprise requirements 2.3 Assess and determine site preparation requirements according to enterprise policies and site parameters
3. Prepare a design brief	3.1 Modify plans appropriate to the individual site and enterprise objectives 3.2 Assess options to modify existing facilities or establish alternative handling operations and obtain quotes 3.3 Identify relevant work health and safety, animal welfare, biosecurity and environment sustainability requirements, codes of practice, enterprise quality assurance requirements and incorporate them into the plan 3.4 Identify legal requirements and constraints on development processes 3.5 Prepare design brief and undertake consultation to establish agreement on options and approaches for development
4. Develop a final plan	4.1 Prepare recommendations based on the analysis of data and enterprise instructions 4.2 Obtain authorisations and approvals required for implementation of the plan 4.3 Produce detailed plan with considerations for work health and safety, animal welfare, biosecurity and environmental implications and enterprise objectives

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK413A Design livestock handling facilities

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK413 Design livestock handling facilities

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess the need for livestock handling facilities
- evaluate and recommend alternative options
- determine the site and design the handling facility for the site
- incorporate work health and safety and animal welfare requirements, potential environmental impacts and enterprise operational principles for livestock handling and movement into design
- estimate cost of building the designed facilities
- develop a detailed plan for livestock handling facility

Knowledge Evidence

The candidate must demonstrate knowledge of:

- livestock behaviour and design interactions
- enterprise livestock handling facility requirements
- requirements of transportation vehicles and loading areas
- costing methodologies
- livestock handling options and accommodation facilities and their uses
- site constraints in relation to livestock handling facilities
- industry and legislative requirements for the planning and establishment of livestock handling facilities
- relevant work health and safety legislative requirements
- codes of practice with regard to environmental protection and animal welfare

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK414 Arrange transport for farm produce or livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to arrange transport for farm produce or livestock.

This unit applies to those whose job roles include arranging and coordinating the transport of farm produce, fodder or livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Confirm transport requirements	<p>1.1 Confirm transport requirements according to enterprise marketing and production plans</p> <p>1.2 Confirm the amount and type of farm produce and number of livestock to be transported, the pick up or delivery requirements, and the route to be taken according to enterprise instructions</p> <p>1.3 Identify and comply with legislative requirements associated with the transport farm of produce or livestock</p>
2. Prepare transport plan	<p>2.1 Determine equipment, vehicles and resources required to transport farm produce or livestock and arrange according to enterprise requirements</p> <p>2.2 Identify, seek and obtain relevant authorisations, permits or animal identification requirements according to legislative requirements</p> <p>2.3 Document transport arrangements including pickup and delivery details, and any requirement to unload livestock to allow for spelling</p> <p>2.4 Document conditions to be maintained for produce, including separation for product integrity</p> <p>2.5 Negotiate compensation or penalties for damage to produce or livestock, or obtain transport insurance</p> <p>2.6 Ensure plan complies with enterprise and legislative requirements for work health and safety, animal welfare and biosecurity</p>
3. Source and select carrier	<p>3.1 Source carriers to ascertain availability, terms and conditions in relation to transport and enterprise requirements</p> <p>3.2 Contact carriers who satisfy the transport requirements to negotiate suitable costs, terms and cartage conditions</p> <p>3.3 Select carrier and confirm negotiations with an agreement and insurance arrangements prepared accordingly</p>
4. Co-ordinate transport arrangement	<p>4.1 Ensure completion and accuracy of relevant documentation according to industry and legislative requirements</p> <p>4.2 Communicate regularly with operational staff and contractors to confirm clarity and understanding of arrangements</p> <p>4.3 Check and confirm scheduling arrangements and preparation of farm produce or livestock in readiness for transportation with enterprise personnel</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK414A Arrange transport for farm produce or livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK414 Arrange transport for farm produce or livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- organise quotes and negotiate effective transport contracts/agreements
- document a transport plan
- ensure transport plan meets relevant work health and safety, animal welfare and biosecurity requirements
- obtain permits and clearances
- co-ordinate transport operations
- ensure the accurate and timely completion of relevant documentation

Knowledge Evidence

The candidate must demonstrate knowledge of:

- industry and legislative requirements for the transport of grain and livestock
- safety requirements for livestock and personnel
- transportation methods availability and costing alternatives
- relevant animal welfare, biosecurity and work health and safety legislative requirements

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK415 Oversee alpaca farm activities

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to oversee alpaca farm activities.

This unit applies to those whose job role includes overseeing activities on an alpaca farm, particularly maintaining the farm's administrative affairs.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Maintain farm records	1.1 Identify and obtain information required to successfully manage farm activities 1.2 Maintain and manage record keeping and information management systems in place within farm to ensure that sound records may be accessed when required 1.3 Obtain and supply required pedigrees and histories from/to the relevant controlling body 1.4 Complete and forward alpaca transfer and registration forms to relevant controlling body
2. Identify and nominate alpacas for sale, exhibition or competition	2.1 Consider individual alpacas for sale, exhibition or competition according to enterprise objectives and procedures 2.2 Obtain, complete and submit appropriate entry forms for specified activity and pay any required entry fees
3. Oversee alpaca farm activities	3.1 Identify work health and safety hazards associated with alpaca farm activities, assess risks, and implement risk controls in line with enterprise policies 3.2 Apply site quarantine and other biosecurity protocols, including hygiene and cleanliness of work areas, to all animals and activities as required 3.3 Apply enterprise animal welfare policies 3.4 Agree upon and document services to be provided for clients' animals with individual clients 3.5 Develop and agree upon plans with each client for management of identified risks in relation to services provided as required 3.6 Identify and manage alpacas arriving at the property in line with established farm protocols

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK415A Oversee alpaca farm activities

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK415 Oversee alpaca farm activities

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implementing safe work procedures
- keep alpaca farm records that comply with requirements of controlling body
- manage nomination of alpacas for sale, exhibition and competition
- apply relevant animal welfare practices, site quarantine and other biosecurity protocols, including hygiene and cleanliness of work areas, to all animals and activities as appropriate
- maintain operational and breeding records

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant legislation and regulations relating to work health and safety waste and environment management, animal health and animal welfare, and employment of staff and contractors
- relevant state and territory legislation, regulations and codes of practice with regard to workplace work health and safety, and the use and control of machinery and equipment
- requirements and procedures laid down by the breed society for recording and communicating farm records
- risk management procedures required when providing services to clients' animals
- relevant biosecurity measures in relation to alpaca movements between properties

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK416 Identify and select animals for breeding

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify and select animals for breeding.

This unit applies to supervisors and managers on livestock farms.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Identify breeding selection criteria	1.1 Reference enterprise production records and reaffirm enterprise production goals in the breeding program 1.2 Source the heritability of the desired performance characteristics and identify the potential for genetic improvement 1.3 Determine criteria for selection and record them in the production plan
2. Select animals for breeding	2.1 Assess accurately animals against selection criteria 2.2 Determine and organise culling and replacement practices to improve the performance of the enterprise breeding program 2.3 Check and monitor selected livestock to ensure maintenance of condition and welfare status in accordance with breeding program requirements 2.4 Conduct or organise tests using recognised industry methods and evaluate within appropriate breeding program parameters

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK416A Identify and select animals for breeding

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK416 Identify and select animals for breeding

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop selection criteria for a breeding program
- select animals that have defects in conformation and /or productivity
- select animals that display characteristics associated with desirable genetic traits
- select animals according to a breeding program's selection criteria
- assess and record performance information

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles of genetic selection for multi traits
- structural abnormalities and their potential impact on production
- correlated traits
- market requirements and related physical and measurable traits
- enterprise animal selection criteria
- strategies for animal selection -including individual traits, measured performance, Estimated Breeding Value (EBVs & ASBVs), and indexes
- use of breeding value percentile tables

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK418 Escort livestock during export

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to escort livestock during export.

This unit applies to animal attendants who escort livestock on sea voyages.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They may provide direction to others, and use discretion and judgement in the selection, allocation and use of available resources. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

All units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCLSK331 Comply with industry animal welfare requirements

AHCLSK307 Euthanase livestock

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Carry out administration requirements	1.1 Obtain and clarify details of the livestock to be exported from the exporter or producer 1.2 Establish effective communication links between all parties to the consignment and any relevant organisations or agencies 1.3 Investigate and verify specific details of the vessel/plane to facilitate loading and transit operations 1.4 Complete required certification, permit and invoicing arrangements according to exporter requirements and relevant legislation 1.5 Estimate nutritional and veterinary requirements and order required quantities according to exporter directions, established industry standards and load specifications
2. Prepare for livestock to be loaded	2.1 Comply with work health and safety policies and procedures, including selection of appropriate Personal Protective Equipment (PPE) 2.2 Ensure that animal welfare and biosecurity requirements are met 2.3 Establish communication lines with all shipboard personnel for the voyage 2.4 Review exporter instructions according to loading criteria 2.5 Identify appropriate infrastructure for loading 2.6 Perform basic risk analysis for loading and recommend preventative measures 2.7 Identify appropriate on-board loading resources including personnel requirements 2.8 Check and ensure all on-board equipment is in working condition, including the veterinary kit and euthanasia equipment
3. Load and accompany livestock on transport	3.1 Observe and follow work health and safety policies and procedures, animal welfare, biosecurity and environmental requirements 3.2 Load and secure prepared livestock safely and humanely according to animal welfare, biosecurity, work health and safety and exporter requirements 3.3 Check and verify loading densities and conditions in accordance with the loading plan and regulatory requirements 3.4 Monitor and record water and feed provision to livestock and report any abnormalities or variance from feed budgets to the appropriate party

Element	Performance criteria
	<p>3.5 Carry out regular observation of all livestock to ensure timely and appropriate responses to changes in condition, feed and water intake, or incidence of disease</p> <p>3.6 Deal humanely with injured or diseased livestock in accordance with relevant animal welfare, biosecurity, health and environmental considerations and in consideration of customer requirements</p> <p>3.7 Complete reports according to shipping company policy and in accurate observation of shipping conditions</p>
4. Complete post-shipment procedures	<p>4.1 Establish unloading strategies including timing, health checks and documentation in consultation with the carrier's Chief Officer or Master</p> <p>4.2 Complete pen cleaning and other established pre-unloading procedures prior to entering port</p> <p>4.3 Unload animals safely and humanely using appropriate equipment and facilities in line with work health and safety, animal welfare, biosecurity and exporter requirements</p> <p>4.4 Identify specific animal requirements at unloading and obtain supplies to meet consignment needs</p> <p>4.5 Complete end of voyage reports and required documentation in accordance with exporter requirements, shipping company policy, government legislation, and customer requirements</p> <p>4.6 Undertake post-transport checks according to exporter and customer requirements, and shipping company policy</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK418A Escort livestock during export

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK418 Escort livestock during export

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out pre-shipping and consignment administration procedures
- make preparations for loading of livestock
- load livestock onto the carrier
- handle, treat and feed livestock in accordance with relevant animal welfare, biosecurity, health and environmental legislation and codes of practice and in consideration of customer requirements
- identify signs of ill health and injury, or signs of abnormal or depressed appetite
- handle and restrain livestock for observation and treatment as required
- oversee the care of livestock in transit
- communicate effectively with exporting agents and related agencies, as well as the Master/Captain, officers and seamen on board
- complete export documentation including daily records of animal observations and conditions
- communicate effectively with exporting agents and related agencies, as well as transportation officers and staff
- implement relevant work health and safety, animal welfare, biosecurity and environmental requirements and practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant work health and safety, animal welfare, biosecurity and quarantine, and environmental legislation and codes of practice

- regulatory requirements and industry standards for the transport of livestock using sea carriers
- typical exporter and shipping company requirements, policies and procedures
- how conflicts should be handled between regulatory requirements and requirements of exporters or shipping companies
- working culture and specifications for imported livestock of common importing countries
- care, husbandry and management procedures for health and welfare of all classes of livestock - including pregnant livestock - in transit
- methods and techniques for handling and restraint of all classes of livestock
- methods and techniques for loading and unloading of livestock
- signs of health, anatomy and physiology of the livestock species
- zoonoses of livestock and preventative health strategies for humans and livestock
- common diseases of the livestock species and preventative health strategies
- signs of ill health and related management strategies in the livestock species
- methods and techniques of euthanasia
- disposal of animal carcasses on-board sea carriers
- on-board procedures and responsibilities
- use and maintenance of personal protective equipment, veterinary, euthanasia and disinfectant materials and equipment
- invoice, receipt and document requirements at both ends of the transport operation
- strategies for effective communication between all parties to the consignment, relevant organisations and agencies, and on-board carrier personnel

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessments for the following performance evidence must be conducted on live animals:

- load and transport livestock

Competency for the unit can be determined in a single species.

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK501 Manage livestock production

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan for livestock production and manage the implementation of such a plan.

This unit applies to farm managers with extensive or intensive livestock production enterprises.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Plan for production	<p>1.1 Assess the capability of land resources for grazing and determine stock, pasture and land management strategies for each land capability class</p> <p>1.2 Assess the suitability and sustainability of water resources</p> <p>1.3 Establish livestock production targets for each enterprise for the short and long term according to the farms marketing and business plans</p> <p>1.4 Establish production targets, taking into consideration enterprise short and long term livestock production goals, herd/flock breeding improvements and relevant risk control strategies</p> <p>1.5 Select genetics and breeding programs based on the production targets and the marketing requirements for the enterprise</p> <p>1.6 Select and design production facilities in a way that deals sensitively with identified waste products</p> <p>1.7 Establish and specifically include environmental controls in the production plan</p> <p>1.8 Identify work health and safety hazards, assess risks and incorporate suitable controls into the production plan</p> <p>1.9 Prepare a plan that documents the decisions taken, the assessments made, the targets established, and any specific issues that relate to work health and safety, animal welfare, biosecurity and environmental risks</p> <p>1.10 Ensure plan includes the type, format, frequency and detail of any reporting required by both manager(s) and operators</p>
2. Plan for livestock needs	<p>2.1 Determine feed requirements for each age/sex category of herds and/or flocks</p> <p>2.2 Determine most appropriate feeding plan for each livestock category based on a cost benefit analysis</p> <p>2.3 Research and implement most appropriate health strategies to prevent and control disease in each herd and/or flock on the basis of a cost benefit analysis</p> <p>2.4 Prepare schedules for purchasing and using the products and services used in livestock production</p> <p>2.5 Research and implement most appropriate livestock production, harvesting, handling and transportation methods and animal welfare requirements from a cost benefit analysis</p> <p>2.6 Prepare a livestock production plan that incorporates the calendar of operations for each enterprise production cycle, and the management of any specific animal welfare issues</p> <p>2.7 Ensure plan includes the type, format, frequency and detail of any</p>

Element	Performance criteria
	reporting required by both manager(s) and operators
3. Seek information on innovations for existing or potential enterprises and farm activities	3.1 Identify and access sources of information on innovations relevant to the enterprise and livestock species 3.2 Assess information on innovations to determine whether or not such innovations could be used in the present enterprise, or in a potential future enterprise 3.3 Amend prepared production plans to include innovations deemed suitable for use in the enterprise
4. Test and adopt relevant innovations	4.1 Consult any people who may be involved in implementing the innovation or in planning for it and discuss the change with them 4.2 Test innovations on the farm to determine whether or not they are suitable, and whether they may be readily adapted to suit the circumstances of the business 4.3 Identify any work health and safety hazards, animal welfare, biosecurity or environmental risks that present during the trial phase, assess them and take responsible action 4.4 Make a decision about whether or not to adopt the innovation, based on its costs and benefits and any implementation issues, including work health and safety, animal welfare, biosecurity and environmental considerations
5. Implement, monitor and evaluate livestock production plans	5.1 Implement and monitor production plans according to the calendar of operations 5.2 Site, erect or install production facilities in a way that deals sensitively with identified waste products 5.3 Evaluate livestock growth/maturity or production according to the planned targets and the marketing requirements 5.4 Monitor flock/herd health, and control and prevent parasite and disease outbreaks quickly and effectively 5.5 Assess feed supplies, monitor pasture or landscape condition and species composition, and vary stocking rates to maintain optimum pasture and livestock health 5.6 Identify, monitor and manage work health and safety hazards, animal welfare, biosecurity or environmental impacts relating to livestock production in the business to promote optimum pasture, livestock, and employee health 5.7 Analyse physical and financial records and extractions taken from them to assess production performance, and to provide information for business and taxation purposes 5.8 Evaluate the production performance of each enterprise to determine whether or not they are sustainable and profitable, and to use in reviewing and revising production plans
6. Comply with legal	6.1 Obtain information about the legal requirements and regulations

Element	Performance criteria
requirements and regulations	<p>that affect farm land ownership/possession and livestock production</p> <p>6.2 Determine record keeping requirements, and put in place procedures to ensure compliance with the range of applicable regulations including taxation legislation</p> <p>6.3 Obtain permits from the relevant authorities for the transport and movement of livestock and equipment</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK501A Manage livestock production

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK501 Manage livestock production

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop livestock production plans
- manage all resources for a grazing enterprise
- implement grazing strategies that match livestock needs and optimise pasture growth
- maintain the farm natural resource base through sustainable practice
- plan and monitor the finances of the production unit
- observe, identify and react appropriately to animal welfare, biosecurity and environmental implications and work health and safety hazards
- monitor and manage animal health, welfare and nutrition
- supervise livestock husbandry operations
- analyse and assess the economic impact of specific situations
- establish processes/strategies, procedures and controls for livestock production
- assess land capability
- comply with legal and taxation requirements
- maintain records of production.
- assess, and then adopt profitable innovations
- implement and monitor relevant work health and safety, animal welfare, biosecurity and environmental requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- livestock nutrition
- health and welfare of animals within the production system.

- key considerations in a livestock breeding operation
- livestock husbandry and management practices
- land capability and its relevance to planning livestock production in the context of the whole farm
- sustainable land use principles and practices applicable in the region
- environmental controls and codes of practice applicable to the enterprise
- budgeting and financing for an enterprise
- cost benefit analysis,
- management practices and processes to minimise noise, odours and debris from the livestock operations
- relevant legislation and regulations relating to soil and water degradation issues, animal health and welfare, biosecurity and chemical use
- relevant work health and safety legislation and codes of practice

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK502 Arrange marketing of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to arrange for the marketing of livestock and associated products.

This unit applies to livestock production managers whose job role includes livestock marketing.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Determine sales characteristics and demand	1.1 Identify potential purchasers and their purchasing requirements from available market information 1.2 Observe current and recent sales to monitor market trends and patterns 1.3 Monitor and review regulatory requirements for market entry to ensure quality assurance and fitness for sale 1.4 Determine ability to deliver product to meet market demand and requirements
2. Sell product and arrange transport	2.1 Research sale logistics and incorporate into marketing strategy 2.2 Consult sale outlets about market prospects and inform them of preferred sale method 2.3 Complete transport arrangements in time for sale, and prepare and organise facilities and product and documentation 2.4 Complete negotiations with agents, brokers and buyers 2.5 Arrange and process payments
3. Assess sales performance	3.1 Obtain and analyse sales data to facilitate monitoring of performance against marketing plan and enterprise requirements 3.2 Analyse strengths and weaknesses of performance 3.3 Review sales strategies to maximise future returns 3.4 Record data for future reference according to enterprise, industry and legislative requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK502A Arrange marketing of livestock

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK502 Arrange marketing of livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify appropriate markets and sales opportunities
- calculate cost of production and target sale price
- select sales outlets
- select selling method and negotiate with brokers, sellers and agents
- prepare and implement marketing plan
- ensure that the product meets legislative and industry requirements for fitness for sale
- coordinate sales and transport logistics for livestock products
- analyse sales data and trends to maximise future profit margins

Knowledge Evidence

The candidate must demonstrate knowledge of:

- market specifications for the products produced
- quality assurance procedures and their implementation
- sales outlets
- current and alternate sale methods
- preparation of livestock and transportation systems
- price risk and sales strategies
- sales analysis
- enterprise and industry policies and codes of practice with regard to livestock sales transportation, recording and reporting requirements
- market access requirements -Minimum Residue Levels (MRLs) and the variance between countries, withholding periods after treatment

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK503 Develop and implement a breeding strategy

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and implement a livestock breeding program.

This unit applies to managers of livestock enterprises responsible for selection and breeding programs and the use of resources appropriate to meet the breeding aims of the enterprise.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Assess breeding requirements	1.1 Assess and clarify breeding requirements 1.2 Identify and arrange resources to support breeding requirements 1.3 Select breeding options to optimise results and consistency 1.4 Undertake economic assessments to establish the feasibility of the breeding objectives 1.5 Formulate breeding program to meet enterprise objectives, and ensure sufficient flexibility to accommodate contingencies
2. Select livestock for breeding	2.1 Determine selection criteria for the visual and objective methods of selecting livestock based on heritability and economic returns for the enterprise 2.2 Establish culling and replacement practices to maintain or improve appropriate herd size, animal ratios and grade of livestock 2.3 Assess genetic gain potential to determine and justify herd or flock structure 2.4 Source genetic material to optimise genetic gain within the herd or flock from suitable sources 2.5 Check and monitor selected livestock to ensure condition and welfare status meets breeding program requirements 2.6 Carry out measurements of production and genetic characteristics and evaluate results within appropriate breeding program requirements
3. Monitor breeding program	3.1 Monitor implementation of the breeding program for efficiency and effectiveness 3.2 Prioritise and implement changes necessary to achieve breeding aims according to breeding program requirements 3.3 Monitor and control allocated resources within enterprise budgetary constraints 3.4 Maintain safe workplace and environmentally responsible practices in line with industry and enterprise work health and safety and environment sustainability requirements 3.5 Observe and comply with relevant legislative requirements associated with livestock production such as animal welfare and biosecurity requirements
4. Evaluate breeding program	4.1 Review and evaluate breeding program processes and outcomes against enterprise objectives 4.2 Evaluate performance of facilities, resources and equipment for effectiveness and efficiency 4.3 Evaluate effectiveness of selection criteria for contribution to

Element	Performance criteria
	achievement of breeding aims and enterprise profitability 4.4 Document relevant information for continual assessment to inform future practice

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK503A Develop and implement a breeding strategy

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK503 Develop and implement a breeding strategy

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify genetic information for existing and potential livestock through breed data
- use industry programs to benchmark and identify sources of genetic material
- develop a breeding objective
- implement selection strategies for livestock
- implement animal welfare strategies to handle livestock safely and humanely
- monitor progress in a breeding program and review where necessary
- evaluate breeding program
- document and review data derived from the breeding strategy
- maintain a safe and hazard-free workplace environment
- monitor and minimise impacts to the environment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- difference between genotype and phenotype, the heritability of genetic traits and the basic genetic theory related to genetic correlation of traits
- relevance of generation interval in relation to commercial improvement
- relevance of estimated breeding values in the development of a multi trait selection strategy
- economic impact of production characteristics
- features of and measurement of production and genetic characteristics used in breeding programs
- relevant work health and safety and biosecurity requirements, and animal welfare and environment sustainability practices

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK504 Develop livestock health and welfare strategies

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and implement preventative health treatment and welfare strategies for animals.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop health and welfare strategies for	1.1 Monitor livestock condition and identify risks to health and

Element	Performance criteria
livestock	welfare relevant to the workplace and local environment 1.2 Develop and document a livestock health and welfare strategy 1.3 Identify and arrange facilities and equipment required to implement health and welfare strategy 1.4 Inform staff details of health and welfare strategy, treatment schedules, work health and safety issues
2. Implement health strategy	2.1 Plan and administer treatment according to veterinary guidelines, legislative requirements, and animal welfare codes of practice 2.2 Refer complex problems or signs of disease for specialist advice and treatment 2.3 Carry out control measures as required to prevent the spread of communicable diseases 2.4 Implement procedures for reporting notifiable diseases according to legislative requirements
3. Manage livestock health and welfare	3.1 Integrate requirements of the regulations and animal welfare code of practice into the health and welfare strategy and workplace procedures 3.2 Analyse and evaluate health and welfare records 3.3 Ensure compliance with withholding periods for treatments 3.4 Evaluate livestock post-treatment for evidence of treatment effectiveness and any further health problems 3.5 Review treatment outcomes and evaluate processes for effective management planning and best practice 3.6 Evaluate animal health, biosecurity and emergency procedures in a review of the animal health and welfare strategy 3.7 Maintain records for health and welfare strategy

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK504A Develop livestock health and welfare strategies

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK504 Develop livestock health and welfare strategies

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify livestock diseases relevant to the workplace and local environment
- develop prevention and treatment strategies for diseases
- implement a proactive risk management approach to managing animal health and welfare
- implement health and welfare strategies appropriate to the livestock species
- calculate dose rates and schedule treatments
- implement and monitor relevant work health and safety requirements
- implement and monitor relevant biosecurity and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- livestock health and abnormalities
- preventative health strategies
- principles of genetic resistance and immunity
- contingency and operational planning
- relevant animal welfare legislation, regulations and codes of practice
- relevant environmental protection legislation and codes of practice
- treatment applications, handling and consequences of their use
- relevant quarantine, biosecurity and emergency legislation, codes of practices and procedures
- relevant work health and safety legislative requirements

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK505 Develop production plans for livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop production plans for livestock.

This unit applies to managers of intensive or extensive livestock production systems.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Determine feasibility of livestock enterprise	1.1 Assess farm environment parameters for their suitability for a range of livestock species 1.2 Assess potential livestock enterprises for their market potential and gross margin returns 1.3 Identify resource requirements 1.4 Identify production risks and strategies to address them 1.5 Select livestock species and breeds/ genetics to suit the production system and the market
2. Identify and define determinants of livestock profitability	2.1 Define production objectives 2.2 Establish strategies for herd/flock sourcing and improvement and determine breeding program as appropriate 2.3 Determine feed requirements for each age/sex/category of herds/flocks 2.4 Determine feeding strategy including grazing management, where appropriate, and develop feeding programs for each livestock category 2.5 Develop health management program to manage/prevent disease in each herd/flock 2.6 Establish environmental controls as required
3. Establish livestock production targets and prepare production plan	3.1 Define performance indicators for the livestock enterprise 3.2 Develop product quality specifications and set production targets 3.3 Establish livestock cash flow budget 3.4 Prepare production plan incorporating a calendar of operations for the enterprise production cycle
4. Review production plans to determine input and service requirement	4.1 Plan logistical arrangements related to harvesting, transportation and marketing and other key operations for the production cycle 4.2 Establish schedules for the purchase of inputs and services used in production 4.3 Establish appropriate physical and financial record keeping system to provide data for the analysis of livestock production performance 4.4 Review production plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK505A Develop production plans for livestock

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK505 Develop production plans for livestock

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine feasibility of livestock enterprise
- identify and define determinants of livestock profitability
- establish livestock production targets
- prepare production plans
- review production plans to determine input and service requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- livestock husbandry, production and management practices
- livestock selection, health and grazing strategies
- financial analysis techniques
- livestock marketing
- sustainable land use principles and practices applicable in the region
- environmental controls and codes of practice applicable to the enterprise
- whole farm planning processes

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK506 Design livestock effluent systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design and plan livestock effluent systems.

This unit applies to livestock production managers or specialists who design effluent and disposal systems.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Determine the feasibility of an effluent management system	1.1 Assess and determine planning parameters that affect the design of effluent management systems 1.2 Assess and determine statutory, local government and environment authority requirements for effluent disposal 1.3 Assess and determine the environmental impacts of livestock effluent disposal 1.4 Evaluate effluent recycling options in conjunction with the enterprise plan 1.5 Analyse effluent processing options on the basis of their merits and suitability for the environment 1.6 Obtain information from effluent management specialists on all relevant aspects of effluent management 1.7 Assess and determine an effluent management system on the basis of a cost benefit analysis
2. Design an effluent management system	2.1 Calculate the volume of livestock effluent using information collected from enterprise plans, industry and enterprise production data and other sources 2.2 Calculate the volume of water flowing into the effluent management system 2.3 Calculate storage requirements 2.4 Obtain professional advice appropriate to the complexity of the task and the financial risk involved 2.5 Ensure plan and layout include provision of access, availability and the incorporation of technological innovations 2.6 Assess and evaluate work health and safety hazards and risks, establish safe systems, and maintain records 2.7 Ensure effluent management system design reflects the requirements of the enterprise business plan, production plan and management plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLSK506A Design livestock effluent systems

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK506 Design livestock effluent systems

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess the effectiveness of a range of effluent management systems to meet the requirements of statutory, local government and environment authorities for effluent disposal
- conduct cost benefit analysis of livestock effluent management systems to select a suitable effluent management system
- design and plan the layout of an effluent system that meets environmental standards and enterprise requirements
- design an effluent management system
- incorporate the enterprise work health and safety and environmental management policies into the plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, functions, characteristics, disadvantages and advantages of effluent management systems (including storage, recycling, processing and disposal)
- regulatory requirements, including environmental, sustainability work health and safety and biosecurity requirements, industry standards, industry and enterprise production parameters, data and information for the design and planning of effluent management systems
- uses and processes for cost benefit analyses, and their applications in relation to livestock production and effluent management
- types and use of information required, and methods for the assessment and determination of effluent production, output and volume for livestock enterprises

- effects and impacts of different livestock production systems on the design and planning of effluent management systems
- types and use of information and advice from other professions or industry sectors that are relevant to livestock enterprises in the design of effluent management systems, including engineering and financial professions

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current conditions for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCLSK507 Plan, monitor and evaluate strategies to improve livestock through genetics

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the planning required to determine the genetic selection of a pure breed or cross breeding program to suit the farm environment. The plan will aim to increase production and financial return by using genetic improvement of the livestock for meat production, dairy production and fibre production and the evaluation of the current breeding program. Data is collected and analysed in order to select sires and dams to improve the livestock to meet the product specifications chosen for the enterprise. Evaluation of the breeding program is carried out on completion.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit is applicable to a person who has a role in managing a breeding enterprise. This unit is likely to require consultation with breed societies, importers and distributors of genetic material, local livestock agents, processors and marketers of the product.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine breeding goals for the enterprise in relation to market specifications	1.1 Determine the breeding goals for the short term and the strategy to meet market specifications in the long term 1.2 Analyse the traits affecting profit in a livestock breeding enterprise to optimise production through an improved genetic breeding program 1.3 Assess the environment where the breeding enterprise is based and select a breed and breeding program to match that environment 1.4 Select a product specification suited to the breeding enterprise
2. Assess current performance of the breeding enterprise	2.1 Collect and analyse data on the traits currently used in the breeding enterprise 2.2 Collect and analyse data on current market performance, using feedback from processors and customers
3. Assess and select livestock for genetic improvement	3.1 Assess the current breeding herd for the genetic traits required for production and marketing 3.2 Analyse genetic information to select herd replacements from the breeding herd and before purchasing stock 3.3 Evaluate the costs and benefits of natural mating, Artificial Insemination (AI) and Embryo Transfer (ET) to achieve genetic improvement
4. Carry out a breeding program	4.1 Assess and improve the facilities on the property for drafting, inseminating and pregnancy testing 4.2 Develop and monitor procedures to be followed for work health and safety while implementing the animal-breeding program 4.3 Apply legal, veterinarian and welfare requirements 4.4 Apply practices to improve submission rates and conception rates of a breeding program 4.5 Assist genetic selection by the use of equipment to aid in data collection and analysis 4.6 Use new technology to collect feedback to improve production and market performance
5. Evaluate the breeding program against the breeding goals	5.1 Assess the compliance of the livestock to the market specifications by using electronic information including feedback sheets and test results 5.2 Assess the phenotype of the livestock produced against the breeding goals

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VBP152 Plan, monitor and evaluate strategies to improve livestock through genetics.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK507 Plan, monitor and evaluate strategies to improve livestock through genetics

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- analyse profit for the breeding enterprise
- select suitable market specifications for the enterprise
- develop selection criteria for a breeding program
- select livestock for a breeding program on phenotype and genotype
- assess farm facilities to carry out a breeding program
- use Breed Object index
- arrange Artificial Insemination (AI) and Embryo Transfer (ET) programs
- implement the breeding program
- feed livestock to ensure success of a breeding program
- organise drugs, animal identification and all equipment in clean working order in preparation for the program
- keep breeding and production records
- submit records and information for statistical analysis and registration of livestock
- handle livestock safely and humanely
- interpret feedback information

Knowledge Evidence

The candidate must demonstrate knowledge of:

- theory of cell division and the structure of DNA
- heritability estimates for the selected characteristics
- recording and understanding breed pedigrees
- dominant genetic traits and marker genes

- accuracy of the genetic potential of the selected breeding trait for the program
- genetic defects
- value of heterosis in a breeding program
- ethics and codes of practice for the welfare of livestock on the breeding program
- phenotype selection criteria
- market specifications targeted by the breeding program
- long term breeding aims
- pregnancy testing procedure
- veterinary and non-veterinary standard operating procedures
- sources for genetic information, up to date program design and implementation procedures

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMER301 Process customer complaints

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to handle formal and informal feedback and complaints from customers.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Respond to customer complaints	1.1 Process complaints as per organisational policies and procedures 1.2 Obtain, document and review reports relating to the complaints

Element	Performance criteria
	1.3 Make decisions taking into account applicable law, company policies and codes 1.4 Negotiate resolution of the complaint and seek agreement where possible 1.5 Maintain a register of complaints and disputes 1.6 Inform customer of outcome of investigation
2. Refer complaints	2.1 Identify complaints that require referral to other personnel or external bodies 2.2 Make referrals to appropriate personnel for follow up 2.3 Forward all documents and investigation reports 2.4 Ensure appropriate personnel are followed up to gain prompt decisions

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMER301A Process customer complaints.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMER301 Process customer complaints

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply organisational or industry procedures for customer complaints
- investigate the details of and background to the complaint and refer to other parties if required
- negotiate an outcome with the customer if appropriate
- process the complaint according to enterprise policy
- recommend appropriate action arising from the complaint

Knowledge Evidence

The candidate must demonstrate knowledge of:

- State/Territory/Commonwealth legislation, regulations, industry codes of practice, standards and guidelines
- organisational policy and procedures for dealing with complaints
- strategies for dealing with customer complaints
- negotiation and communication strategies
- the individual's role in processing customer complaints

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMER302 Provide advice on hardware products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide advice on hardware products.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes and sustainability practices

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify customer needs	1.1 Use appropriate interpersonal skills to identify customer needs 1.2 Handle customer enquiries courteously and promptly in

Element	Performance criteria
	<p>accordance with enterprise policies and procedures and legislative requirements</p> <p>1.3 Match available products to customer needs</p> <p>1.4 Research knowledge and understanding of hardware products actively and regularly and update from authoritative sources</p>
2. Provide product advice	<p>2.1 Provide advice to customers in a timely and professional manner and accordance with legislative requirements</p> <p>2.2 Exhibit and demonstrate products appropriately to customer as required</p> <p>2.3 Suggest alternative and additional products and services as necessary</p> <p>2.4 Address customers concerns and questions sensitively in line with enterprise requirements</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMER302A Provide advice on hardware products.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMER302 Provide advice on hardware products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- advise customers as to the range of products available for their specific application/environment
- engage with and give advice to customers
- ensure that the advice, product type, application and suitability are understood by the customer
- encourage add on sales
- research hardware products
- organise the demonstration of products
- represent the enterprise in a professional manner when dealing with customers

Knowledge Evidence

The candidate must demonstrate knowledge of:

- customer service and selling techniques
- systems and procedures for the safe handling of products
- enterprise policies and procedures, business values, structure, product range and services
- industry terminology for products
- relevant requirements of work health and safety, industry, fair trading, trade practices, sales of goods, and public liability

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMER303 Sell products and services

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to sell products and services.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Engage customer	1.1 Approach customer in a timely and professional manner 1.2 Use interpersonal skills to engage customer

Element	Performance criteria
	1.3 Present customers with purchase options that address their needs and assist to identify their preferred option 1.4 Identify personal and professional and legal limitations in addressing customer needs and seek assistance from appropriate personnel
2. Sell products and services	2.1 Determine prices and quotations on the advice of appropriate personnel and provide to customer 2.2 Complete sales to maximise potential for customer satisfaction 2.3 Identify and respond to opportunities for up selling and repeat sales
3. Maintain products	3.1 Handle and store products safely and efficiently 3.2 Complete documentation and re-ordering 3.3 Review sales techniques to enhance future sales results

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMER303A Sell products and services.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMER303 Sell products and services

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- engage customers
- identify the potential for a sale
- present purchase options to the customer
- provide quotations
- complete a sale
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- customer needs in various merchandising settings
- customer buying signals
- sales techniques
- how to effectively engage and communicate with a range of customers from culturally diverse backgrounds, and of varying physical and mental abilities
- legal requirements in sales environments, particularly Fair Trading, Trade Practices and Sale of Goods legislation, public liability and work health and safety legislation

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC MER304 Recommend irrigation products and services

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recommend irrigation products and services to fulfil the needs of a client.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research store product range	1.1 Accessing relevant sources of information to develop product knowledge 1.2 Identify products according to relevant product information 1.3 Operate store products, machinery and equipment safely 1.4 Demonstrate a broad knowledge of irrigation product range

Element	Performance criteria
2. Recommend irrigation products	2.1 Identify client's needs 2.2 Provide details of product specifications and explain to clients to assist buying decisions 2.3 Explain features and benefits of products to clients to create a buying environment
3. Estimate quantities	3.1 Estimate quantities of irrigation products accurately from measurements and information provided according to product requirements 3.2 Provide client with accurate quotation for estimated quantities
4. Advise on irrigation product warranties	4.1 Provide client with clear explanations of the comparisons between products and manufacturer's warranties 4.2 Confirm individual product warranty terms and conditions from relevant sources of information 4.3 Provide client with written information regarding individual product warranty terms and conditions, especially extended or promotional warranties
5. Negotiate price and payment options	5.1 Explain payment options including store recommended retail pricing for various brand options 5.2 Negotiate individual product prices where necessary to achieve sales
6. Advise on and arrange product service and repairs	6.1 Question client to determine nature of problem 6.2 Identify problem by accessing manufacturer's information 6.3 Offer solutions taking in consideration the nature of problem and available product information 6.4 Identify and discuss the service or repair process 6.5 Quote price and timeline for basic service or repairs 6.6 Obtain client details and record on repair form 6.7 Label item for repair and store securely 6.8 Notify client on completion of service or repair

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG307A Recommend irrigation products and services.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC MER304 Recommend irrigation products and services

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- demonstrate and assemble irrigation products and components
- determine pump capacities in relation to proposed application
- perform basic diagnostic techniques

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for recommending irrigation products and services
- manufacturer's specifications for a range of products
- price negotiation techniques and payment options for the store
- pump and irrigation equipment characteristics, technical capabilities and limitations
- pump and irrigation equipment components, controls, features and functions
- store irrigation products and pump range
- store product and service and repair policy

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMER401 Coordinate customer service and networking activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate customer service and networking activities.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes.

This unit applies to agricultural or horticultural merchandise or department managers who have responsibility for customer service delivery by others.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Contribute to quality customer standards	1.1 Access, interpret, apply and monitor customer service standards in the workplace 1.2 Make contributions to the development, refinement and improvement of service policies, standards and processes 1.3 Ensure customer interactions are consistent with legislation, codes of practice and enterprise policies
2. Implement customer service systems	2.1 Encourage personnel to consistently implement customer service systems 2.2 Review customer feedback in consultation with appropriate personnel and analyse when improving work practices 2.3 Identify customer service complaints and make adjustments to ensure continued service quality 2.4 Communicate adjustments to all those involved in service delivery within appropriate time frames 2.5 Coordinate and manage delivery of services or products to ensure they effectively and efficiently meet agreed quality standards
3. Manage networks to ensure customer needs are addressed	3.1 Establish effective regular communication with customers 3.2 Establish, maintain and expand networks to ensure referral of customers to products or services 3.3 Establish procedures to ensure that decisions about targeting of customer services are based on up-to-date information about the customer and the products/services available 3.4 Establish procedures to ensure that referrals are based on the matching of the assessment of customer needs and availability of products/services 3.5 Maintain records of customer interaction in accordance with organisational guidelines

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMER401A Coordinate customer service and networking activities.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC MER401 Coordinate customer service and networking activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- access and apply customer service policies and procedures
- respond to customer feedback and complaints
- develop and use networks to source goods and services
- provide value for the customer in sourcing and supplying goods and services
- maintain records of customer feedback and interactions

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant legislation, codes and enterprise policies
- the organisation's business structure, products and services
- customer service systems/procedures including the continuous quality improvement framework, together with some knowledge of the customer population and how the system applies to delivering customer service to that customer population
- the principles of customer service
- the principles of effective communication in relation to listening, questioning and non-verbal communication
- the individual's role in delivering customer service
- techniques for dealing with customers with special needs
- techniques for building relationships of trust and mutually acceptable outcomes
- related organisations, agencies and networks
- the principles and operations of networks

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMER402 Provide advice and sell machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide advice and sell machinery.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to rural products merchandisers whose job role includes providing advice and selling agricultural farm and small machinery, spare parts and building products.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Identify customer needs	1.1 Use interpersonal skills to identify customer needs 1.2 Handle customer enquiries courteously and promptly in accordance with enterprise procedures and industry requirements 1.3 Match available products to customer needs 1.4 Research and update knowledge and understanding of machinery and related products from authoritative sources 1.5 Research local enterprise and district requirements for machinery and related products
2. Provide product advice	2.1 Provide advice that addresses customer needs in a timely and professional manner and is in line with enterprise and legislative requirements 2.2 Exhibit or demonstrate products to customer 2.3 Address customers concerns and questions 2.4 Provide relevant safety information to the customer for recommended products 2.5 Prepare and supply quotations
3. Sell products	3.1 Complete sales in to customer's satisfaction in accordance with enterprise and legislative requirements 3.2 Identify and respond to opportunities for add-on and repeat sales 3.3 Monitor sales results against specified criteria 3.4 Review sales techniques to enhance future sales results
4. Handle and maintain products	4.1 Handle and store products safely and efficiently in line with manufacturer, enterprise and work health and safety requirements 4.2 Complete documentation 4.3 Monitor stock levels and follow re-ordering procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMER402A Provide advice and sell machinery.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMER402 Provide advice and sell machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- advise customers as to the most appropriate products for their specific application/environment
- engage with and give advice to customers
- research product and supplier information
- ensure that the advice, product type, application and suitability are understood by the customer
- encourage add on sales
- organise the demonstration of products
- represent the enterprise in a professional manner when dealing with customers
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- customer service and selling techniques
- systems and procedures for the safe handling of machinery
- enterprises business values, structure, products and services
- industry terminology for products
- machinery and related products requirements of local district industry
- industry trends and improved practices in relation to machinery usage and equipment
- systems and procedures for the safe handling of machinery and parts
- manufacturers product recommendations and warranty requirements

- relevant work health and safety, industry, fair trading, trade practices, and sales of goods legislation
- relevant components of State/Territory Acts relating to machinery and its use

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMER403 Provide advice and sell farm chemicals

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide advice and sell farm chemicals.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to rural products merchandisers whose job role includes providing advice and selling farm chemicals.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Identify customer needs	1.1 Use interpersonal skills to identify customer needs 1.2 Handle customer enquiries courteously and promptly 1.3 Match available products to customer needs and against environmental considerations 1.4 Research and update knowledge and understanding of farm chemicals and related products from authoritative sources 1.5 Research local enterprise and district requirements for farm chemical products
2. Provide product advice	2.1 Provide advice that addresses customer needs in a timely and professional manner and is in line with enterprise and legislative requirements 2.2 Consider and discuss environmental considerations, non-chemical alternatives and additional products 2.3 Address customers concerns and questions 2.4 Ensure that information and directions on the product label are understood by the customer 2.5 Provide relevant safety information to the customer for recommended products 2.6 Prepare and supply quotations
3. Sell products	3.1 Ensure relevant licences/accreditation regarding the sale and handling of farm chemicals are held by salesperson and enterprise 3.2 Complete sales in to customer's satisfaction in accordance with enterprise and legislative requirements 3.3 Supply Safety Data Sheets (SDS) to customers purchasing registered chemicals. 3.4 Identify and respond to opportunities for add-on and repeat sales 3.5 Monitor sales results against specified criteria 3.6 Review sales techniques to enhance future sales results
4. Handle and maintain products	4.1 Handle and store farm chemical products safely and efficiently in line with manufacturer, work health and safety and chemical legislation requirements 4.2 Complete documentation 4.3 Monitor stock levels and follow re-ordering procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMER403A Provide advice and sell farm chemicals.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC MER403 Provide advice and sell farm chemicals

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- engage customers, in relation to giving advice, receiving information and creating additional sales opportunities
- assess and demonstrate cost benefits of products
- ensure that information and directions on the product label are understood by the customer
- research supplier information
- supply Safety Data Sheets (SDSs) with all registered chemicals
- encourage add on sales and represent the enterprise in a professional manner
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- potential environmental impact of chemicals
- enterprises business values, structure, products and services
- chemical formulations, available proprietary products and their applications
- the content and legal status of registered chemical labels
- relevant HAZCHEM, AGSAFE, Australian Dangerous Goods, work health and safety, industry, fair trading, trade practices, and sales of goods legislation
- enterprise policies and procedures relating to customer service
- relevant licences/accreditation regarding the sale and handling of farm chemicals
- work health and safety, pesticides and environmental legislation, codes of practice and enterprise procedures

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMER404 Provide advice on agronomic products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide advice on agronomic products.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to rural products merchandisers whose job role includes providing advice on agronomic products including fertilisers.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Identify customer needs	1.1 Use interpersonal skills to identify customer needs 1.2 Handle customer enquiries courteously and promptly in accordance with enterprise and legislative requirements 1.3 Match available products to customer needs and against ecological considerations 1.4 Research and update knowledge and understanding of agronomic products and related products from authoritative sources 1.5 Research local enterprise and district requirements for agronomic products
2. Provide product advice	2.1 Provide advice that addresses customer needs in a timely and professional manner and is in line with enterprise and legislative requirements 2.2 Exhibit or demonstrate products to customer in line with enterprise procedures and legislative requirements 2.3 Organise product trials of products when required 2.4 Suggest alternative and additional products and services 2.5 Address customers concerns and questions in line with enterprise requirements 2.6 Provide relevant safety information to the customer for recommended products

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC MER404A Provide advice on agronomic products.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC MER404 Provide advice on agronomic products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research sources of agronomic information to retain technical currency in all aspects of agronomy relevant to local district requirements
- engage with and give advice to customers
- ensure that the advice and product type are applicable and suitable for the purpose and growing environment of the client
- encourage add on sales
- represent the enterprise in a professional manner when dealing with customers
- follow enterprise of work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- customer service techniques
- systems and procedures for the safe handling of products
- enterprises business values, structure, products and services
- industry terminology for products
- requirements of local or specific customers
- relevant requirements of work health and safety, industry, fair trading, trade practices, sales of goods, environment and public liability legislation
- agronomic products including fertilizers and crop seeds and their uses
- relevant components of State/Territory Acts relating to fertilisers and certified seeds

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMER405 Provide advice on livestock products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide advice on livestock products.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to rural products merchandisers whose job role includes providing advice on livestock industry equipment, animal handling systems and stock feeds.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Identify customer needs	1.1 Use interpersonal skills to identify customer needs 1.2 Handle customer enquiries courteously and promptly in accordance with enterprise and legislative requirements 1.3 Match available products to customer needs and against ecological considerations 1.4 Research and update knowledge and understanding of livestock products and related products from authoritative sources 1.5 Research local enterprise and district requirements for livestock and related products
2. Provide product advice	2.1 Provide advice that addresses customer needs in a timely and professional manner and is in line with enterprise and legislative requirements 2.2 Exhibit or demonstrate products to customer in line with enterprise work health and safety, biosecurity and animal welfare policies. 2.3 Suggest alternative and additional products and services 2.4 Address customers concerns and questions 2.5 Provide relevant safety information to the customer for recommended products

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC MER405A Provide advice on livestock products.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMER405 Provide advice on livestock products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- advise customers as to the range of livestock products available for their specific application/environment
- engage with and give advice to customers
- ensure that the advice, product type, application and suitability are understood by the customer
- advise customers on risks to worker safety or animal welfare from use of the product
- encourage add on sales
- represent the enterprise in a professional manner when dealing with customers
- follow enterprise work health and safety policies
- follow enterprise biosecurity, animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- customer service and selling techniques
- systems and procedures for the safe handling of products
- enterprises' s business values, structure, products and services
- livestock industry equipment, animal handling systems and stockfeeds
- relevant work health and safety, animal welfare and biosecurity legislation, fair trading, trade practices, and sales of goods legislation
- relevant components of State/Territory Acts relating to stock feeds

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMER406 Provide information on fertilisers and soil ameliorants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide information on fertilisers and soil ameliorants.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit applies to employees in a sales role in an agricultural or horticultural support enterprise who provide information on fertilisers, soil ameliorants and related environmental information to primary producers

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Gather information on the requirements of the client	1.1 Identify basis of fertiliser or soil ameliorant requirement 1.2 Evaluate planned use of fertiliser or soil ameliorant against legislative requirements, local productivity and environmental guidelines and food safety regulations 1.3 Take individual soil, plant tissue and water samples for each customer 1.4 Provide customer with relevant sampling kits and advice on sampling procedures where appropriate
2. Provide information on nutrient management program	2.1 Provide information and referrals about the fertiliser and soil ameliorant products including work health and safety, biosecurity, food safety and environmental and sustainability issues inline with industry codes of practice and enterprise policies 2.2 Recommend use of nutrient management tools where necessary 2.3 Suggest changes to application method or timing if necessary 2.4 Research and update knowledge and understanding of fertilisers, soil, ameliorants and related products from authoritative sources 2.5 Research local enterprise and district requirements for fertilisers, soil, ameliorants and related products
3. Provide appropriate service or product	3.1 Refer customer to a specialist adviser if required 3.2 Provide customer with information regarding transporting, storing and handling fertiliser and soil ameliorants 3.3 Arrange transport, handling and storage of fertiliser and soil ameliorants where required 3.4 Supply fertiliser and soil ameliorants that meet legislative requirements and productivity, food safety, biosecurity and environmental guidelines 3.5 Record details of transaction

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMER406A Provide information on fertilisers and soil ameliorants.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMER406 Provide information on fertilisers and soil ameliorants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- take soil, plant tissue and water samples
- use and explain use of nutrient management tools
- provide information on the relationship between soil types, water, crops, fertiliser and soil ameliorant use
- follow enterprise work health and safety policies
- follow enterprise biosecurity and sustainability policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- crop nutrient requirements - both macro and micro nutrients
- effect of soil ameliorants in dispersion and adjustment for acidity or alkalinity (pH)
- fertiliser and soil ameliorant application methods, including timing and frequency of fertiliser and soil ameliorant application to minimise losses
- fertiliser and soil ameliorants availability and relative costs
- industry production regimes and fertiliser practices
- sources of technical information
- major nutrient management risks of leach, run-off, load, blow, mine and how these impact on the environment
- nutrient management advisory tools and processes used by advisers in making a crop nutrition recommendation
- organisational work health and safety and environmental procedures, practices and policies in operating sampling equipment
- packaging and dispatch procedures for samples

- physical, chemical and biological properties related to a healthy soil and environment,
- sampling tools and methods, including soil, plant tissue and water tests; yield monitoring; and electrical conductivity survey
- impact of climate on soil productivity
- environmental impacts including soil structural decline, fertility decline, acidification and salinity, erosion, loss of organic matter, water quality, fertiliser and soil ameliorant impurities, and greenhouse gas emissions
- work health and safety legislation
- use, transport, handling and storage requirements of fertiliser and soil ameliorants in terms of legislation, codes of practice, environmental stewardship and human safety

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMER407 Provide irrigation sales and service

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide irrigation sales and service.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify customer needs	1.1 Use appropriate interpersonal skills to accurately identify customer needs 1.2 Handle customer enquiries courteously and promptly

Element	Performance criteria
	1.3 Match available products to customer needs and against ecological considerations 1.4 Research and update knowledge and understanding of irrigation products regularly from authoritative sources
2. Provide advice on products and services	2.1 Provide advice that addresses customer needs to customers in a timely and professional manner 2.2 Explain or show products to customer that may meet needs 2.3 Suggest alternative and additional products and services as necessary 2.4 Address customer concerns and questions sensitively
3. Recommend irrigation components and pumps	3.1 Interpret irrigation design 3.2 Confirm pump and component requirements and discuss with customer 3.3 Provide advice on irrigation pumps based on suitability for the task, energy efficiency from pump curves and serviceability 3.4 Provide advice on components based on technically correct and current information
4. Research irrigation innovations and products	4.1 Maintain contacts in irrigation product development and review new products regularly 4.2 Study exhibitions and field displays to update technical expertise 4.3 Read and incorporate technical information and extension advice to provide advice to customers
5. Conduct retail transactions with irrigation clients	5.1 Estimate quantities for irrigation installation projects 5.2 Provide quotes on products and services 5.3 Negotiate price and payment options 5.4 Provide advice on irrigation product warranties 5.5 Organise product service and repairs 5.6 Organise delivery of irrigation merchandise

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG428A Provide irrigation sales and service.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHC MER407 Provide irrigation sales and service

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- calculate pressure loss due to irrigation components
- calculate pumping requirements
- conduct research of products
- estimate requirements for materials and components from a plan
- identify adverse environmental impacts of irrigation pumping activities and take appropriate remedial action
- implement and follow work health and safety and environmental requirements
- interpret irrigation plans
- interpret pump curves
- monitor performance of pumps and irrigation components
- pressure testing pumps
- provide customer service
- select irrigation components for a system
- use pressure testing equipment
- use recorded information to review energy and water efficiency for an irrigation system

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of irrigation sales and service
- basic irrigation system diagnostic techniques
- demonstration and assembly of irrigation products and components
- determination of pump capacities in relation to proposed application

- interpretation of manufacturers specifications
- irrigation components technical specifications and suitability
- price negotiation and payment options
- pump and irrigation equipment characteristics, technical capabilities and limitations
- pump and irrigation equipment components, controls, features and functions
- store irrigation products and pump range
- store product and service and repair policy

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMER501 Develop a sales strategy for rural products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a sales strategy for rural products.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes.

This unit applies to individuals who take responsibility for their own work and who provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

This unit applies to retail and wholesale rural products managers.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Merchandising and Sales (MER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Review existing sales plans	1.1 Review current market returns against sales objectives for the property 1.2 Analyse and compare current performance data to relevant benchmark information 1.3 Identify trends and opportunities in respect to customer requirements 1.4 Review current specifications for products and services
2. Devise a sales strategy	2.1 Identify range of market options for farm products and services 2.2 Analyse alternative market options for their profitability and feasibility consistent with sales objectives for property 2.3 Review the legal implications of the sales strategy 2.4 Develop sales plan identifying product specifications and quality assurance strategy, target market outlets, timing and volume of sales and price risk management strategy 2.5 Determine available resource commitments and capacity to implement the sales strategy 2.6 Define contingency arrangements to manage variations in production and market prices
3 Implement and review a sales strategy	3.1 Conduct sales according to the sales strategy and adjust according to the contingency plan 3.2 Review and amend sales plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMER501A Develop a sales strategy for rural products.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMER501 Develop a sales strategy for rural products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- review current product sales against the marketing plan
- identify:
 - product specifications and quality assurance strategy
 - target market outlets
 - timing and volume of sales
 - price risk management strategy
- assess a range of options for selling rural products
- devise a sales strategy
- implement the sales strategy and review against targets in the marketing plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- potential market outlets
- customer specifications for products and services
- relevant information sources related to markets and market returns
- marketing and promotional planning targets
- relevant work health and safety legislation, codes of practice and enterprise requirements
- relevant commercial law and legislation

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMKH301 Carry out minor service of milking equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out minor service of milking equipment.

This unit applies to technicians and dairy farm workers who service and repair milking machine components.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Milk Harvesting (MKH)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Identify faults in milking machines	1.1 Identify poor performance of milking equipment from observations at milking 1.2 Carry out minor machine adjustments to rectify poor performance characteristics 1.3 Complete fault finding and fault diagnosis with minimum disruption to milking routines
2. Identify external faults	2.1 Identify and isolate independent electrical appliances that impact on the enterprise dairy operation 2.2 Observe animal behaviour during milking and record abnormalities 2.3 Identify faults in earthing systems and grids and refer to qualified electrician when necessary
3. Carry out operational service and maintenance of milking machines	3.1. Clean and adjust machine components and repair or replace defective parts or components 3.2 Identify faults in electric motors and refer to qualified electrician when necessary 3.3 Complete programmed maintenance routines to replace consumables and maintain lubrication 3.4 Eliminate or risk control work health and safety hazards identified in safety audits 3.5 Complete adjustments to restore optimum performance of milking equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMKH301A Carry out minor service of milking equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMKH301 Carry out minor service of milking equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify faults in milking machines
- identify external faults
- carry out operational service and maintenance of milking machines
- apply enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, functions, cleaning, monitoring and maintenance of milking machines and components
- criteria and methods for assessing optimal performance of milking machines and their components
- possible faults, problems and poor performance with milking machines and their components, impacts on milking operations and corrective actions for these faults and problems
- signs and methods for assessing livestock health and welfare relevant to milking operations
- recognition of possible faults with earthing systems, grids and electric motors of milking machines and refer faults to qualified electricians
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMKH303 Service and repair milking equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to service and repair milking equipment.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Milk Harvesting (MKH)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Service and repair vacuum pumps and the	1.1 Follow enterprise work health and safety policies 1.2 Establish vacuum pump capacity and assess performance against

Element	Performance criteria
vacuum regulator	design parameters and shed requirements 1.3 Disassemble, service and reassemble vacuum pump 1.4 Check and repair vacuum pump exhaust and housing to minimise noise and ensure that levels remain within prescribed standards 1.5 Check and clean regulators for performance and replace defective parts
2. Service pulsators and electronic systems	2.1 Assess pulsator performance during milking and as a part of mechanical testing 2.2 Remove and repair or replace electronic or pneumatic pulsators in mechanical testing 2.3 Test and replace extra low voltage segments of the pulsation and wash systems controllers
3. Service and repair milk pumps and the milk releasing system	3.1 Check pumping performance of milk pumps 3.2 Disassemble and repair milk pumps, drives and couplings 3.3 Inspect milk releaser and replace rubber seals and flaps
4. Repair and maintain the milk transport system	4.1 Inspect rubberware for correct specification including liner/teat cup matching and replace or adjust 4.2 Inspect claws and claw bowls for cleanliness and correct connection to suit the specific pulsation system 4.3 Assess the operation of automatic vacuum cut-off in the claw and clean air admission holes 4.4 Inspect milk lines and air lines and check joins for compliance with industry standards 4.5 Check cans and vessels for dents and damage and shut off valves for correct operation 4.6 Disassemble, clean and re-assemble plate cooler, and clean and replace filters
5. Service and repair non-milking systems	5.1 Inspect jettors and cleaning system to ensure adequate air admission during cleaning and correct water volumes are circulating 5.2 Repair or replace cleaning system components 5.3 Check automatic cup removers to ensure that detectors are clean and effective and that the pistons operate effectively 5.4 Repair or replace automatic cup removers 5.5 Inspect herd recording equipment and valves and replace rubberware 5.6 Inspect and repair or maintain feed systems

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMKH303A Service and repair milking equipment.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMKH303 Service and repair milking equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- service and repair vacuum pumps and the vacuum regulator
- service pulsators and electronic systems
- service and repair milk pumps and the milk releasing system
- repair and maintain the milk transport system
- service and repair non-milking systems
- apply enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, functions, cleaning, monitoring and maintenance of milking machines and all components
- criteria and methods for assessing optimal performance of milking machines and their components
- requirements, procedures and assessment criteria for mechanical testing of milking machines and all components
- possible faults, problems and poor performance with milking machines and their components, impacts on milking operations and corrective actions for these faults and problems
- types, functions, cleaning, monitoring and maintenance of feed systems and their components
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC MKH304 Monitor and establish milking machine cleaning

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor and provide advice on cleaning milking machines.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Milk Harvesting (MKH)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify cleaning problems	1.1 Establish hygiene practices through interview and shed records 1.2 Establish bacterial levels for the plant from factory test results and

Element	Performance criteria
	identify potential cleaning problems 1.3 Identify residues and other evidence of poor cleaning regimes by Inspecting and disassembling milking equipment 1.4 Establish cleaning and hygiene regimes and identify cleaning chemicals to be used 1.5 Determine water quality and quantity for optimal cleaning outcomes 1.6 Identify work health and safety hazards, assess risks, implement control measures and keep records
2. Carry out cleaning routines	2.1 Carry out manufacturer specified machine and ancillary equipment cleaning routines 2.2 Carry out manufacturer specified vat cleaning routines 2.3 Monitor water temperature and circulating chemical concentrations throughout the cleaning cycle 2.4 Remove milk stone and other accumulated residues by manually cleaning milking facility equipment
3. Determine chemicals and cleaning routines	3.1 Determine and document suitable cleaning routines in consultation with equipment manufacturer and chemical company 3.2 Determine and record cleaning routine and hygiene regime for the milking facility and all installations 3.3 Evaluate cleaning routine and hygiene regime to ensure that equipment and cleaning performance meets established performance specifications

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMKH304A Monitor and provide advice on cleaning milking machines.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMKH304 Monitor and establish milking machine cleaning

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify cleaning problems
- carry out cleaning routines
- determine chemicals and cleaning routines
- apply enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, functions, cleaning, monitoring and maintenance of milking machines, milking machine components and milking facility equipment
- requirements, criteria and assessment methods for optimal performance of milking machines and their components
- possible faults, problems and poor performance with milking machines and their components, impacts on milking operations and corrective actions for these faults and problems
- requirements, criteria, procedures, routines and assessment methods for optimal cleaning and hygiene of milking machines and their components
- types, handling, use and disposal of detergents and cleaning agents, work health and safety and environmental practices for these agents
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMKH305 Mechanically test milking machines

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to mechanically test milking machines.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Milk Harvesting (MKH)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Record milking machine specifications	1.1 Establish herd details and health status 1.2 Determine expected performance from machine specifications

Element	Performance criteria
	1.3 Assess and record condition of components 1.4 Identify work health and safety hazards, assess risks implement controls, record and report to supervisor
2. Calculate required milking machine performance	2.1 Calculate effective reserve based on facility specifications 2.2 Calculate vacuum pump capacity from effective reserve 2.3 Record manufacturer's recommended component specification and matching
3. Measure milking machine performance	3.1 Measure working vacuum levels in line with required performance 3.2 Adjust vacuum to optimise milking facility performance 3.3 Determine and report air consumption and component leakage. 3.4 Test pulsators in line with manufacturer's recommendations 3.5 Establish and match working air consumption to manufacturer's recommendations
4. Make recommendations to optimise machine performance	4.1 Interpret test results in line with desired performance and herd details 4.2 Provide recommendations and a written report on safety considerations for the specific installation tested 4.3 Provide recommendations on milking facility performance 4.4 Complete report on component condition in line with manufacturer's requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMKH305A Mechanically test milking machines.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMKH305 Mechanically test milking machines

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- record milking machine specifications
- calculate required milking machine performance
- measure milking machine performance
- make recommendations to optimise machine performance
- apply enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- information required, criteria and methods for assessing herd health status
- types, functions, cleaning, monitoring and maintenance of milking machines, milking machine components and milking facility equipment
- requirements, criteria and assessment methods for optimal performance of milking machines and their components
- requirements and methods for determining the performance targets of a milking enterprise from the herd status and milking installations
- possible faults, problems and poor performance with milking machines and their components, impacts on milking operations and corrective actions for these faults and problems
- relevant work health and safety requirements
- key aspects and components of reports and recommendations to a milking enterprise

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC MKH401 Carry out cleaning-time tests of milking machines

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out cleaning time tests of milking machines.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Milk Harvesting (MKH)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for cleaning-time testing	1.1 Implement enterprise work health and safety policies 1.2 Establish protocols for the conduct of cleaning-time tests based

Element	Performance criteria
	<p>on previous testing outcomes</p> <p>1.3 Assess and record quality of water used for the cleaning process from on-site, facility or laboratory tests</p> <p>1.4 Determine the suitability and recommended concentrations of cleaning chemicals in line with prevailing water quality, facility requirements and equipment manufacturer recommendations</p> <p>1.5 Establish bacteriology of the specific facility from relevant records</p>
2. Carry out cleaning-time tests of milking equipment	<p>2.1 Identify and record details of normal cleaning routines and procedures while testing is carried out</p> <p>2.2 Install testing equipment to measure water or airflow velocities</p> <p>2.3 Carry out cleaning-time tests before or during the cleaning of the milking machines or bulk milk tank</p>
3. Report on cleaning-time test result	<p>3.1 Record and collate test results</p> <p>3.2 Interpret test report results in line with industry standards and manufacturer recommendations</p> <p>3.3 Report test results to the enterprise</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMKH401A Carry out cleaning-time tests of milking machines.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMKH401 Carry out cleaning-time tests of milking machines

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- make preparations for cleaning-time testing
- carry out cleaning-time tests of milking equipment
- report on cleaning-time test result
- implement enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, functions, cleaning, monitoring and maintenance of milking machines and all components
- criteria and methods for assessing optimal performance of milking machines and their components
- requirements, procedures and assessment criteria for mechanical testing of milking machines and all components
- requirements, criteria and assessment methods for determining water quality and the impacts of water quality on maintenance and performance of milking machines
- requirements, criteria and assessment methods for determining bacteriology and the impacts of bacteriology on maintenance and performance of milking machines
- possible faults, problems and poor performance with milking machines and their components, impacts on milking operations and corrective actions for these faults and problems
- requirements, criteria, procedures, routines and assessment methods for optimal cleaning and hygiene of milking machines and their components

- types, handling, use and disposal of detergents and cleaning agents, work health and safety and environmental practices for these agents
- requirements, procedures and assessment criteria of cleaning-time tests and the impacts of cleaning-times on maintenance and performance of milking machines
- key aspects and components of collating, interpreting and reporting on test results to an enterprise
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMKH402 Design and fabricate milking equipment installations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design and fabricate milking equipment installations.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Milk Harvesting (MKH)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare design and	1.1 Determine facility design and installation estimates to suit the

Element	Performance criteria
installation estimates	application 1.2 Document financial and physical resources that impact on the proposed works 1.3 Identify work health and safety issues that impact on the design and construction of the facility and installation, and incorporate risk controls in the design and construction planning 1.4 Determine manpower and other resources required and submit the tender
2. Plan installation	2.1 Complete contract for work including verification of material estimates and costings 2.2 Obtain relevant building and planning permits 2.3 Ensure site planning includes consideration of environmental issues, service connections and alternative power supplies 2.4 Plan required components to match the proposed installation and source from the original equipment manufacturer 2.5 Plan the installation to eliminate hazards to people and animals during milking, cleaning or service operations
3. Facilitate the completion of the installation	3.1 Carry out job scheduling with all relevant parties 3.2 Order and take delivery of physical and material resources 3.3 Coordinate the implementation of the milking machine installation 3.4 Establish areas of responsibility for all the project participants and provide full notification

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMKH402A Design and fabricate milking equipment installations.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMKH402 Design and fabricate milking equipment installations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare design and installation estimates
- plan installation
- facilitate the completion of the installation
- implement work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, functions, cleaning, monitoring and maintenance of milking facilities and milking machine/equipment installations
- requirements, resources, components and financial aspects of planning milking equipment installations for milking facilities and enterprises
- requirements, resources, components and manpower for implementing installation of milking machine/equipment
- relevant enterprise considerations for milking facilities and milking equipment installations
- keys aspects and components of tender submissions and contracts for work
- types of relevant approvals, authorities and permits required, and procedures to obtain these approvals, authorities and permits
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC MKH403 Design and install enterprise milk cooling and storage

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design and install on-farm milk cooling and storage systems.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Milk Harvesting (MKH)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine cooling and	1.1 Determine available cooling water supply quantity and test the

Element	Performance criteria
storage system requirements	<p>quality of the water supply</p> <p>1.2 Ensure the planned milk cooling and storage systems meet industry standards and match enterprise and herd needs</p> <p>1.3 Determine and record design considerations including appropriate siting of components</p> <p>1.4 Determine work health and safety hazards, assess risks, implement controls and report as required</p>
2. Determine milk pre-cooling requirements	<p>2.1 Measure and record maximum peak flow of milk delivery</p> <p>2.2 Check cooling water temperatures and quality against design specifications</p> <p>2.3 Compare available milk cooling equipment with design requirements and select suitable equipment</p> <p>2.4 Determine work health and safety and human health regulatory requirements and establish compliance targets</p> <p>2.5 Determine water cooling system requirements in line with planned equipment and available resources</p>
3. Determine milk storage requirements	<p>3.1 Determine enterprise milk production levels and projected production increases</p> <p>3.2 Establish milk entry temperature and other critical design considerations in consultation with the enterprise and from available data</p> <p>3.3 Select a suitable milk vat to meet shed production requirements and bulk milk collection routines</p>
4. Install milk cooling and storage equipment	<p>4.1 Install plate cooler and other components of the pre-cooling system in line with established system design and industry standards</p> <p>4.2 Install vat and refrigeration equipment to meet design specifications</p> <p>4.3 Complete commissioning tests to ensure the operation of all elements of the cooling and storage systems comply with performance targets and milk supply quality standards</p>
5. Operate and maintain milk cooling and storage equipment	<p>5.1 Complete routine maintenance program requirements in line with manufacturers' recommendations</p> <p>5.2 Determine repair and service requirements, including rectification of operational faults, as part of maintenance routines</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMKH403A Design and install on-farm milk cooling and storage.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMKH403 Design and install enterprise milk cooling and storage

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine cooling and storage system requirements
- determine milk pre-cooling requirements
- determine milk storage requirements
- install milk cooling and storage equipment
- operate and maintain milk cooling and storage equipment
- implement enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant requirements and industry standards for design, planning, installing and operating milk cooling and milk storage systems
- types, functions, cleaning, operating, monitoring and maintenance of milk cooling and milk storage systems and all components
- requirements, components and considerations for designing, planning, siting and installing milk cooling and milk storage systems and their components, and to meet the needs of the enterprise
- requirements, criteria and assessment methods for determining water quality and the impacts of water quality on maintenance and performance of milk cooling and milk storage systems
- possible faults, problems and poor performance with milk cooling and milk storage systems and their components, impacts on enterprise operations and corrective actions for these faults and problems

- criteria and methods for assessing performance of milk cooling and milk storage systems and their components
- requirements and assessment methods for determining enterprise milk production levels
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMKH404 Install milking equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install milking equipment.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Milk Harvesting (MKH)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Order installation components	1.1 Complete contract for work with customer 1.2 Order specified tinware as per planned installation

Element	Performance criteria
	1.3 Ensure bending and rolling of pipe work meet specifications 1.4 Assemble components in transportable sections for transfer to site 1.5 Seek specialist advice for non-standard installations
2. Inspect and prepare installation site	2.1 Check site location, dimensions and levels 2.2 Determine work health and safety hazards, assess risks, implement controls and complete records 2.3 Report non-compliance and make alterations and corrections in consultation with the appropriate authorities 2.4 Measure installation and mark layout as per contract plans
3. Manufacture components in the workshop	3.1 Ensure vacuum pump guards and stands are made according to specifications 3.2 Ensure pipelines and vessels are manufactured and assembled according to installation design 3.3 Pre-wire electrical components 3.4 Complete non-milking systems as per dairy plan 3.5 Determine work health and safety hazards, assess risks and implement safe systems of manufacture
4. Install machine/equipment	4.1 Prepare machine/equipment components for sequential installation 4.2 Install machine/ equipment as per specifications and in co-operation with the enterprise and trade and building personnel 4.3 Carry out all work as per regulatory requirements and in compliance with the Australian Standards for Milking Equipment Installation and Performance 4.4 Determine work health and safety hazards, assess risks and implement safe systems of installation 4.5 Make modifications to standard operating procedures as required 4.6 Level, align, couple and connect machine/ equipment as per specifications, excluding electrical components
5. Commission test installed machine/equipment	5.1 Complete mechanical testing of machine/ equipment to ensure conformance to specifications, performance standards and other requirements such as work health and safety 5.2 Take corrective actions for machine/equipment performing below standards and manufacturer's specifications 5.3 Ensure final work quality and finish comply with established industry standards 5.4 Clean site, remove all leftover materials and waste, and ensure that site is safe 5.5 Record and report all alterations/modifications to machine/equipment to the appropriate authority

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMKH404A Install milking equipment.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMKH404 Install milking equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- order installation components
- inspect and prepare installation site
- manufacture components in the workshop
- install machine/equipment
- commission test installed machine/equipment
- implement work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, functions, cleaning, operation, monitoring and maintenance of milking facilities and milking machine/equipment
- requirements, resources, components, manpower and procedures for installation of milking machine/equipment
- requirements, criteria and procedures for making alterations/modifications to milking machine/equipment
- Australian Standards for Milking Equipment Installation and Performance, regulatory requirements and procedures for reporting non-compliance
- implications and impacts of non-compliance of milking machine/equipment
- relevant requirements and considerations for installing milking machine/equipment
- key aspects and components of contracts for work
- types of relevant approvals, authorities and permits required, and procedures to obtain these approvals, authorities and permits
- criteria and methods for assessing performance of milking machine/equipment

- requirements, procedures and assessment criteria for mechanical testing of milking machine/equipment
- possible faults, problems and poor performance with milking machine/equipment and corrective actions for these faults, problems and poor performance
- requirements, methods and procedures for site cleaning, waste and debris disposal
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMKH405 Performance test milking machines

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to performance test milking machines.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit may apply to partnerships between milking machine technicians, veterinarians, dairy factory field officers, herd test personnel, detergent and chemical company representatives, original equipment manufacturer representatives, regulatory authority personnel and enterprise.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Milk Harvesting (MKH)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Wet test milking machine/equipment	1.1 Apply enterprise work health and safety policies 1.2 Collate relevant mechanical testing reports and outcomes as the basis for additional tests 1.3 Establish protocols for wet testing to suit individual installation requirements 1.4 Install test equipment at specific locations to complete tests 1.5 Measure and record vacuum levels and vacuum drop and identify abnormalities
2. Carry out milking-time tests of milking machine/equipment	2.1 Establish protocols for milking-time tests based on consideration of previous dry or wet testing outcomes 2.2 Install testing equipment to complete agreed tests during milking 2.3 Complete milking-time tests and record results 2.4 Submit written assessment and recommendations to the enterprise

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMKH405A Performance test milking machines.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMKH405 Performance test milking machines

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- wet test milking machine/equipment with live animals
- carry out milking-time tests of milking machine/equipment with live animals
- apply enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- requirements, equipment, procedures and assessment criteria for mechanical testing, wet testing and milking time testing of milking machine/equipment
- criteria, methods and procedures for assessing performance of milking machine/equipment
- key aspects and components of collating, interpreting and reporting on test results to an enterprise
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM101 Assist with routine maintenance of machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist with routine maintenance of small engine machinery and equipment including hand tools.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters. They identify and seek help with simple problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare for basic routine maintenance	1.1 Read or listen to work instructions from supervisor and clarify where necessary 1.2 Identify and select tools and supplies required to carry out basic routine maintenance tasks 1.3 Carry out routine pre-operational checks of machinery and equipment and make adjustments where required 1.4 Identify and segregate faulty or unsafe machinery and equipment for repair or replacement 1.5 Identify work health and safety hazards in the workplace and report to the supervisor 1.6 Select and use suitable personal protective equipment
2. Carry out basic routine maintenance	2.1 Carry out greasing, lubrication and other basic servicing of machinery and equipment 2.2 Make routine adjustments and repairs to machinery and equipment 2.3 Use safe work methods
3. Complete basic routine maintenance activities	3.1 Clean and store tools 3.2 Collect, treat and dispose or recycle waste from maintenance activities according to environmental procedures and enterprise requirements 3.3 Clean and maintain work area 3.4 Report malfunctions, faults, wear or damage to tools to supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM101A Assist with routine maintenance of machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM101 Assist with routine maintenance of machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- test machinery and equipment to identify faults
- carry out basic repairs
- complete work records
- clean up work area
- apply safe and environmentally responsible workplace practices
- read and interpret manufacturers specifications, work and maintenance plans, safety decals and Safety Data Sheets (SDSs)
- measure and calculate volumes, consumption and lubrication requirements
- use oral communication skills and language competence to communicate effectively with others
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, characteristics and functions of machinery and equipment
- machinery and equipment operating procedures
- types, characteristics and functions of tools used in maintenance of machinery and equipment
- enterprise work health and safety legislative requirements
- Codes of Practice with regard to the use and control of hazardous substances
- environmental Codes of Practice with regard to disposal of fuels and oils

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM201 Operate two wheel motorbikes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain and operate two wheel motor bikes.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

Appropriate licenses for the operation of a two wheel motorbike are obtained where required.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare a two wheel motor bike for	1.1 Read or listen to supervisor's instructions and clarify where necessary

Element	Performance criteria
operation	1.2 Identify and report potential work health and safety hazards 1.3 Conduct routine pre operational checks 1.4 Replace and report damaged or worn components 1.5 Use, fit and maintain personal protective equipment 1.6 Ensure any items that are to be transported on the bike are safely secured 1.7 Identify areas and applications excluded to two wheel motor bikes on the workplace safety plan 1.8 Select appropriate two wheel motorbike for the rider's size, skill and task to be completed 1.9 Two wheel motor bike is safely unloaded from transport where applicable
2. Operate a two wheel motor bike	2.1 Recognise and control risks to self, others and the environment according to legislative and enterprise requirements 2.2 Comply with legislation and enterprise policies in regards to carrying passengers 2.3 Steer, manoeuvre and position two wheel motor bikes in a smooth and controlled manner 2.4 Identify, anticipate and control riding hazards through the application of safe riding techniques 2.5 Operate farm two wheel motor bikes in a safe and controlled manner on a range of surface and terrain conditions 2.6 Identify and account for environmental implications associated with machinery operation
3. Complete and check two wheel motor bike operation	3.1 Conduct shut-down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, secure and store two wheel motor bikes 3.5 Load and secure c for transport where required 3.6 Maintain two wheel motor bikes use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM201A Operate two wheel motorbikes.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM201 Operate two wheel motorbikes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe operating procedures
- ride and maintain two wheel motorbikes as part of daily work routines
- apply hand-eye coordination and body positioning to achieve stable riding
- undertake routine pre-operational checks and maintenance
- recognise and control hazards and risks
- safely operate two wheel motor bikes in a range of surface and terrain conditions
- maintain vehicle records
- unload and load two wheeled motor bikes where required
- follow enterprise environmental policies
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- hazards and risks associated with two wheel bike use
- components, controls and features of two wheel motor bikes and their functions
- a range of two wheel motor bikes and attached equipment and functional applications
- operating principles and operating methods
- load limits and the principles of weight distribution with regard to load shifting and bike movement
- effects of different surface and terrain conditions on the operation of two wheel motor bikes
- licensing requirements

- work health and safety requirements, codes of practice and workplace procedures
- codes of practice with regard to the use and control of hazardous substances
environmental codes of practice for machinery operation
- standard operating procedures (SOPs)

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM202 Operate tractors

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate tractors with and without attached equipment.

Working with tractors is an inherently dangerous activity. Individuals who work at this level must be thoroughly instructed in all work health and safety aspects of operating tractors. The tractor must also comply with relevant Australian standards for tractors.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare tractor for operation	1.1 Confirm the activity to be undertaken with supervisor, including identifying potential hazards and implementation of safe working procedures 1.2 Read the relevant machinery operation manual and observe manufacturer's instructions 1.3 Use and maintain personal protective equipment 1.4 Select and attach equipment required to carry out work 1.5 Conduct safety pre operational checks on both tractor and attached equipment and report faults or malfunctions for repair 1.6 Attach equipment and loads that do not exceed the weight limitations or change the dynamic stability of the tractor
2. Operate tractor	2.1 Recognise and control risks to self and others 2.2 Steer, manoeuvre and position tractor in a smooth and controlled manner 2.3 Operate tractor according to low risk operating procedures in a controlled manner and monitored for performance and efficiency 2.4 Undertake work in accordance with the agreed plan and within the operating capacities and manufacturer's specifications 2.5 Recognise and minimise environmental impacts associated with tractor operation
3. Complete and check tractor operation	3.1 Conduct shut-down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, decontaminate, secure and store tractor and attached equipment 3.5 Apply enterprise biosecurity policies where required 3.6 Maintain tractor and equipment use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

An induction process for the use of the tractor must be followed, including reading and observing the manufacturer's manual when using a different tractor or on a different property.

Assessments must be conducted on candidates performing a range of activities, using a range of attachments and implements, in a range of surface and terrain conditions.

Unit Mapping Information

This unit is equivalent to AHCMOM202A Operate tractors.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM202 Operate tractors

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed operating a tractor with a range of attached equipment and implements, in a range of surface and terrain conditions.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe operating procedures
- carry out pre-operational checks and maintenance including tagging defects
- set and secure attachments according to manufacturer's directions
- steer, manoeuvre and position the tractor in a safe and controlled manner
- utilise the various components and controls of the tractor
- secure, adjust and calibrate attachments and implements for operation
- operate tractors in a range of surface and terrain conditions, with and without attachments and implements
- carry out shut down procedures
- minimise environmental impacts associated with tractor operation
- follow enterprise work health and safety policies
- follow enterprise biosecurity protocols where required

Knowledge Evidence

The candidate must demonstrate knowledge of:

- tractor components, controls and features and operational functions
- tractor operators manuals
- tractor steering systems and features
- features and operational functions and procedures of attachments and implements

- load limits and the principles of weight distribution with regard to load shifting and tractor movement
- distinguishing characteristics of individual tractors including rated performance capacities
- effects of various surface and difficult terrain conditions on tractor operation
- duty of care to self, others and the environment
- relevant legislation with regard to machinery operation and licensing requirements
- environmental Codes of Practice with regard to machinery operation
- enterprise work health and safety requirements to operate a tractor safely
- enterprise biosecurity procedures

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessment should take place in a range of surface and terrain conditions, including adverse conditions.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM203 Operate basic machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate and maintain machinery and equipment.

This unit does not apply to chainsaws, tractors, vehicles, earth moving equipment.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare basic machinery and equipment for use	1.1 Read or listen to supervisor's instructions and seek clarification where necessary 1.2 Identify and report potential work health and safety hazards 1.3 Conduct routine pre operational checks as described in operator manual 1.4 Replace and report damaged or worn components 1.5 Use and maintain personal protective equipment
2. Operate basic machinery and equipment	2.1 Operate machinery and equipment safely 2.2 Complete work to supervisor's satisfaction 2.3 Minimise environmental impacts associated with machinery operation and maintenance
3. Check, clean and store basic machinery and equipment	3.1 Conduct shut-down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, secure and store machinery 3.5 Maintain machinery use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM203A Operate basic machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM203 Operate basic machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- Identify and report potential work health and safety hazards
- carry out pre-operational checks and maintenance
- carry out basic servicing and maintenance of basic machinery and equipment
- report and tag defects if necessary
- secure attachments according to manufacturer's directions
- operate machinery in a safe and controlled manner
- implement shut-down and storage procedures
- record maintenance and operation details
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- pre-operational and safety checks for basic machinery and equipment
- hazards associated with the operation of basic machinery and equipment
- operating principles and operating methods for basic machinery and equipment
- procedures for cleaning, securing and storing basic machinery and equipment
- risks associated with the operation of machinery and equipment in different weather conditions and difficult terrain conditions
- relevant State or Territory legislation, regulations and Codes of Practice with regard to work health and safety requirements, and the use and control of hazardous substances
- environmental impacts and minimisation measures associated with the operation of basic machinery and equipment

- enterprise policies with regard to machinery and equipment use, recording and reporting routines

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM204 Undertake operational maintenance of machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake operational maintenance of machinery.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for	1.1 Confirm work with supervisor

Element	Performance criteria
maintenance	1.2 Select tools and supplies appropriate to job requirements and confirm against maintenance plan 1.3 Inspect tools for serviceability and prepare for use 1.4 Identify work health and safety hazards and report safety concerns to the supervisor
2. Perform scheduled maintenance	2.1 Undertake basic servicing tasks of machinery 2.2 Adjust equipment appropriately 2.3 Apply basic diagnostic techniques and identify and fix mechanical faults 2.4 Report more serious or complex faults for referral
3. Complete maintenance activities	3.1 Clean and store tools 3.2 Collect, treat and dispose or recycle waste from maintenance activities according to enterprise environmental requirements 3.3 Clean, return to operating condition, and maintain work areas 3.4 Complete enterprise records of machinery maintenance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM204A Undertake operational maintenance of machinery.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM204 Undertake operational maintenance of machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify work health and safety hazards and report to supervisor
- select and prepare tools and equipment
- carry out lubrication and operational servicing
- conduct basic diagnostic tests
- report simple faults and report and tag more serious faults
- collect, remove and recycle or dispose of wastes according enterprise environmental policies
- maintain records of machinery maintenance
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types and uses of lubricants and other commonly used servicing materials
- operational principles of machinery including mechanical and auto-electrical systems
- servicing characteristics of plant and equipment
- types, characteristics, uses and limitations of hand power tools
- functions of components of common mechanical and hydraulic systems
- different working principles of 2-stroke, 4-stroke, petrol and diesel engines
- set-up requirements of plant and equipment, and principles of calibration
- basic diagnostic processes and techniques
- environmental Codes of Practice with regard to maintenance activities

- work health and safety, environmental legislative and enterprise requirements and Codes of Practice
- hazard identification procedures

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM205 Operate vehicles

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate and maintain vehicles.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

Appropriate licenses for the operation of a vehicle are obtained where required.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare vehicle for use	1.1 Identify work health and safety hazards in the work area and report to the supervisor

Element	Performance criteria
	1.2 Carry out routine checks and maintenance of vehicle prior to use 1.3 Identify faults or malfunctions and report for repair 1.4 Secure loads appropriately 1.5 Select and use suitable personal protective equipment
2. Drive vehicle	2.1 Drive vehicle in a safe and controlled manner 2.2 Identify and anticipate driving hazards and control through the application of safe and defensive driving techniques 2.3 Recognise environmental implications associated with vehicle operation and apply positive enterprise environmental procedures where relevant
3. Complete and record vehicle performance	3.1 Conduct shut-down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean and decontaminate (where necessary), secure and store vehicles 3.5 Maintain vehicle use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM205A Operate vehicles.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM205 Operate vehicles

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify work health and safety hazards and report to supervisor
- prepare the vehicle for use
- drive the vehicle in a safe and controlled manner
- minimise environmental impacts of vehicle use
- shut the vehicle down
- carry out routine checks and maintenance
- secure loads
- maintain vehicle use records
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- components, controls and features of vehicles and their functions
- operating principles and operating methods
- load limits and the principles of weight distribution with regard to load shifting and vehicle movement
- effects of adverse surface and terrain conditions on the operation of vehicles
- Environmental Codes of Practice with regard to the operation of vehicles
- relevant State and Territory legislation and regulations with regard to licensing, road and traffic requirements

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM206 Conduct grader operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake grader operations.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for operations	1.1 Read or listen to supervisor's instructions and seek clarification

Element	Performance criteria
	where necessary 1.2 Identify and report potential work health and safety hazards 1.3 Conduct routine pre operational checks 1.4 Observe safety rules and regulations, including site rules and legislation and site specific instructions
2. Operate a grader	2.1 Undertake start-up, park-up, shut-down and communications procedures as required by site specific requirements 2.2 Conduct grader operations within equipment and operational limitations 2.3 Use safe work practices 2.4 Undertake work in accordance with the agreed plan and within the operating capacities and manufacturer's specifications 2.5 Carry out all work with consideration of environmental impact
3. Carry out basic operator maintenance	3.1 Follow shut down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, decontaminate (where necessary), secure and store machinery 3.5 Maintain machinery use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM206A Conduct grader operations.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM206 Conduct grader operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and report work health and safety hazards
- operate a grader safely
- operate the grader's features and attachments consistent with operator manual
- carry out all work with consideration of environmental impact
- carry out day to day servicing and minor maintenance
- complete machinery use records
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- grader and site safety requirements
- grader characteristics, technical capabilities and limitations
- grader operational and maintenance procedures
- enterprise work health and safety policies

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM207 Conduct front-end loader operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate a front end loader in an agricultural environment.

All work is carried out to comply with workplace procedures and any local, state and federal government regulations, legislation and codes of practice.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context. Appropriate licences for the operation front-end loaders must be obtained where required.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for operations	1.1 Read or listen to supervisor's instructions and seek clarification where necessary 1.2 Read the front end loader operation manual and observe manufacturer's instructions

Element	Performance criteria
	1.3 Identify and report potential site, work health and safety hazards 1.4 Assess the work site and confirm the suitability of the machinery for the task 1.5 Conduct routine pre operational checks 1.6 Observe safety rules and regulations, including site rules and legislation and site specific instructions
2. Operate front-end loader	2.1 Undertake start-up, park-up, shut-down and communications procedures in accordance with manufacturers' and site specific requirements 2.2 Conduct Front-end loader operations within equipment and operational limitations 2.3 Use safe work practices 2.4 Select loading technique and modify where required to meet changing work conditions 2.5 Use attachments in accordance with manufacturer's instructions and site requirements 2.6 Use safe towing practices in accordance with the authorised equipment and connection capabilities 2.7 Undertake work in accordance with the agreed plan and within the operating capacities and manufacturer's specifications 2.8 Carry out all work with consideration of environmental impact
3. Carry out basic operator maintenance	3.1 Follow shut down procedures in line with manufacturers' specifications and site requirements 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, secure and store machinery 3.5 Apply enterprise biosecurity policies where required 3.6 Maintain machinery use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM207A Conduct front-end loader operations.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM207 Conduct front-end loader operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and report potential work health and safety hazards on the site
- read the front end loader operation manual and observe manufacturer's instructions
- conduct pre-operational checks
- operate front-end loaders safely
- operating the front-end loader features and attachments consistent with manufacturer's operator manual
- use safe towing practices
- carry out day to day servicing and fault finding and minor maintenance
- communicate with supervisor and work team
- apply enterprise environmental policies
- apply enterprise biosecurity policies where required

Knowledge Evidence

The candidate must demonstrate knowledge of:

- front-end loader operations as stated in the relevant manufacturers operation manual
- front-end loader and site safety requirements
- hazards and risks associated with front-end loader operations
- characteristics, technical capabilities and limitations of front-end loaders
- operational and maintenance procedures
- enterprise biosecurity and environmental policies and protocols
- relevant State/Territory legislation related to the operation of front-end loaders

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessment must be conducted in a range of surface conditions and on a range of different terrains.

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM208 Conduct excavator operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake excavator operations.

All work must be carried out to comply with workplace procedures, local, state and federal government regulations, legislation and codes of practice, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

Appropriate licences for the operation excavator equipment must be obtained where required.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for operations	1.1 Read or listen to supervisor's instructions and seek clarification

Element	Performance criteria
	where necessary 1.2 Identify and report potential work health and safety hazards 1.3 Conduct routine pre operational checks 1.4 Observe safety rules and regulations, including site rules and legislation and site specific instructions
2. Operate an excavator	2.1 Undertake start-up, park-up, shut-down and communications procedures as required by site specific requirements 2.2 Conduct operations within equipment and operational limitations 2.3 Use safe work practices 2.4 Undertake work in accordance with the agreed plan and within the operating capacities and manufacturer's specifications 2.5 Carry out all work with consideration of environmental impact
3. Carry out basic operator maintenance	3.1 Follow shut down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, secure and store machinery 3.5 Maintain machinery use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM208A Conduct excavator operations.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM208 Conduct excavator operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed operating an excavator.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- carry out day to day servicing and minor maintenance
- operate an excavator safely
- operate the excavator's features and attachments consistent with operator manual
- minimise environmental impact of excavator activities
- maintain machinery use records
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- excavator and site safety requirements
- excavator characteristics, technical capabilities and limitations
- excavator operational and maintenance procedures
- relevant State and Territory legislation

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM209 Conduct dozer operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake dozer operations.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for operations	1.1 Read or listen to supervisor's instructions and seek clarification

Element	Performance criteria
	where necessary 1.2 Identify and report potential work health and safety hazards 1.3 Conduct routine pre operational checks 1.4 Observe safety rules and regulations, including site rules and legislation and site specific instructions
2. Operate a dozer	2.1 Undertake start-up, park-up, shut-down and communications procedures as required by site specific requirements 2.2 Conduct operations within equipment and operational limitations 2.3 Use safe work practices 2.4 Undertake work in accordance with the agreed plan and within the operating capacities and manufacturer's specifications 2.5 Carry out all work with consideration of environmental impact
3. Carry out basic operator maintenance	3.1 Follow shut down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, secure and store machinery 3.5 Maintain machinery use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM209A Conduct dozer operations.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM209 Conduct dozer operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- carry out day to day servicing and minor maintenance
- operate a dozer safely
- operate the dozer's features and attachments consistent with operator manual and site requirements
- minimise environmental impact of dozers operations
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- dozer and site safety requirements
- dozer characteristics, technical capabilities and limitations
- dozer operational and maintenance procedures
- relevant State /Territory legislation in regard to dozer operations

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM210 Conduct scraper operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake scraper operations.

All work must be carried out to comply with workplace procedures, local, state and federal government regulations, legislation and codes of practice, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

Appropriate licences for the operation of a scraper must be obtained where required.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for operations	1.1 Read or listen to supervisor's instructions and seek clarification

Element	Performance criteria
	where necessary 1.2 Identify and report potential work health and safety hazards 1.3 Conduct routine pre operational checks 1.4 Observe safety rules and regulations, including site rules and legislation and site specific instructions
2. Operate a scraper	2.1 Undertake start-up, park-up, shut-down and communications procedures as required by site specific requirements 2.2 Conduct operations within equipment and operational limitations 2.3 Use safe work practices 2.4 Undertake work in accordance with the agreed plan and within the operating capacities and manufacturer's specifications 2.5 Carry out all work with consideration of environmental impact
3. Carry out basic operator maintenance	3.1 Follow shut down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, secure and store machinery 3.5 Maintain machinery use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM210A Conduct scraper operations.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM210 Conduct scraper operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- operate a scraper safely
- operate the scraper's features and attachments consistent with operator manual and site requirements
- carry out day to day servicing and minor maintenance
- minimise environmental impact of scraper operations
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- scraper and site safety requirements
- scraper characteristics, technical capabilities and limitations
- scraper operational and maintenance procedures
- relevant State /Territory legislation in regard to scraper operations

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM211 Operate side by side utility vehicles

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake work using a side by side utility vehicle used for general transport, carrying loads, towing small trailers and mustering stock.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare side by side	1.1 Confirm the activity to be undertaken with supervisor, including

Element	Performance criteria
utility vehicle for use	identifying safe working areas, potential hazards and implementation of safe working procedures 1.2 Conduct safety pre operational checks on the vehicle and report faults or malfunctions for repair 1.3 Use and maintain personal protective equipment 1.4 Attach equipment and loads that do not exceed the weight limitations or change the dynamic stability of the vehicle 1.5 Secure loads and ensure weight does not exceed limits
2. Operate side by side utility vehicle	2.1 Operate machinery and equipment in a safe, efficient and controlled manner 2.2 Operate side by side utility vehicles in accordance with task requirements, conditions and manufacturers operating guidelines 2.3 Assess and minimise potential risks to self, others and the environment 2.4 Ensure that the vehicles seat belts and other safety features are functional and used 2.5 Identify and account for environmental implications associated with machinery operation
3. Complete work	3.1 Conduct shut-down procedures according to manufacturer's specifications and enterprise requirements 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, secure and store machinery 3.5 Ensure biosecurity procedures are followed where required 3.6 Maintain machinery use records for servicing purposes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM211A Operate side by side utility vehicles.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM211 Operate side by side utility vehicles

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and risks associated with side by side utility vehicle use
- conduct pre and post operational checks
- operate side by side utility vehicles in a safe, efficient and controlled manner
- minimise environmental impacts of side by side utility vehicle use
- perform any required minor maintenance
- follow wash-down procedures in line with biosecurity guidelines
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- equipment characteristics, technical capabilities and limitations
- safe driving techniques in a range of surface conditions and terrain
- transporting the side by side utility vehicles on a trailer or transportation device
- manufacturer's specifications and workplace requirements for pre-start checks, machinery operation techniques, load carrying operator level servicing and shutdown emergency procedures
- components and controls, features and functions
- enterprise work health and safety policies
- relevant State /Territory legislation in regard to side utility vehicle use

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM212 Operate quad bikes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate and maintain quad bikes as well as load and unload them onto trailers or other vehicles used for their transport.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and operator manuals and sustainability practices.

Working with quad bikes is an inherently dangerous activity. Individuals who work at this level must be thoroughly instructed in all work health and safety aspects of operating quad bikes.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare a quad bike for operation	1.1 Confirm the activity to be undertaken with supervisor, including potential hazards and implementation of safe working procedures 1.2 Select, fit correctly, use and maintain personal protective equipment including helmets 1.3 Conduct safety pre operational checks on quad bike and report faults or malfunctions for repair 1.4 Identify safe work areas and applications (loads and attachments) from workplace safety plan and operators manual 1.5 Unload quad bike safely from the trailer or transportation device
2. Operate a quad bike	2.1 Recognise and control risks to self and others 2.2 Steer, manoeuvre, position and stop quad bike in a smooth and controlled manner 2.3 Apply hand-eye coordination and transfer of body weight appropriately (active riding) to maintain bike stability 2.4 Identify and avoid riding surfaces, terrains and slopes that are dangerous to safe operation 2.5 Identify environmental implications associated with machinery operation and minimise impact 2.6 Identify and account for biosecurity implications associated with machinery operation
3. Complete and check quad bike operation	3.1 Conduct shut-down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, secure and store quad bike 3.5 Follow wash-down procedures in line with biosecurity guidelines where required 3.6 Maintain quad bike use records for servicing purposes 3.7 Load and secure quad bike safely

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

No passengers, no riders under 16 years of age, no towing, helmets must be worn at all times.

Candidates must NOT be under the influence of any alcohol or drugs. Candidates must NOT be taking any medication (prescribed or otherwise) that may impair judgement.

Unit Mapping Information

This unit is equivalent to AHCMOM212A Operate quad bikes.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM212 Operate quad bikes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed operating a quad bike using safe work procedures.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and risks associated with quad bike use
- identify safe work areas
- select, fit correctly, use and maintain personal protective equipment including helmets
- operate quad bikes in a range of riding surface conditions and terrain conditions
- steer, manoeuvre, position and stop the quad bike in a smooth and controlled manner
- apply hand-eye coordination and correctly transfer body weight (active riding) to maintain bike stability including riding on uneven or steep terrain
- follow enterprise work health and safety procedures
- unload and load quad bike safely
- follow wash-down procedures in line with biosecurity guidelines

Knowledge Evidence

The candidate must demonstrate knowledge of:

- hazards and risks associated with quad bike use
- components, controls and features of quad bikes and their functions
- a range of quad bikes and functional applications
- operating principles and operating methods of quad bikes
- manufacturer's instructions, including but not exclusive to the operating manual
- load limits and the principles of weight distribution with regard to load shifting and bike movement including riding on uneven or steep terrain
- loading and unloading safely from a trailer or other transportation device

- effects of different riding surfaces and terrain conditions on the operation of quad bikes

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessment must be conducted in a range of riding surface conditions and in a range of terrains appropriate for the safe use of quad bikes.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM213 Operate and maintain chainsaws

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to safely operate a hand-held chainsaw and maintain it in working condition.

This unit applies to cross-cutting fallen timber using safe cutting techniques.

This unit applies to individuals who undertake defined activities with specialised tools and methods, work in a structured context, apply knowledge and skills to demonstrate autonomy and limited judgement, and provide solutions to a limited range of predictable problems.

Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Assist in preparation of work site	1.1 Determine location of worksite and correct tree from scope of works 1.2 Identify site hazards, assess risks and report to supervisor 1.3 Confirm work zone with work crew and monitor site 1.4 Confirm first aid and emergency personnel, equipment and procedures 1.5 Record and implement work health, safety, site, environmental and traffic control measures
2. Recognise and apply workplace safety procedures	2.1 Identify hazards relevant to the maintenance and operation of chainsaws, assess risks and implement risk controls 2.2 Select and use personal protective equipment 2.3 Confirm relevant licensing and legislative requirements with regard to the operation of chainsaws with supervisor 2.4 Transport chainsaw and fuel appropriately
3. Check and prepare chainsaw	3.1 Select appropriate tools and materials required for maintenance 3.2 Conduct routine checks and maintenance procedures before operation 3.3 Calculate fuel oil ratios before mixing 3.4 Identify, tag, record and report chainsaw faults or malfunctions and organise repair
4. Operate chainsaw	4.1 Communicate with work team during operations using voice, hand and whistle signals 4.2 Place supports appropriately to ensure a stable base 4.3 Identify materials to be cut and position them for operation 4.4 Assess material to be cut visually for defects 4.5 Determine cutting methods appropriate to material type and implement risk controls 4.6 Select and use appropriate tools associated with chainsaw use 4.7 Operate chainsaw to cross cut timber using documented low risk work methods 4.8 Maintain effective worksite communication to ensure efficient workflow and address problems 4.9 Identify, assess and control environmental implications associated with chainsaw operation
5. Complete and check chainsaw operation	5.1 Record and report chainsaw damage, malfunction and irregular performance 5.2 Clean and store chainsaw 5.3 Dispose of debris from operation in accordance with

Element	Performance criteria
	environmental requirements 5.4 Maintain relevant reports

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCARB205A Operate and maintain chainsaws.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM213 Operate and maintain chainsaws

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply chainsaw use and operation risk assessment and implementation of controls
- clean and store chainsaw
- confirm first aid and emergency personnel, equipment and procedures
- confirm work zone with work crew and monitor site
- determine site location and work details and clarify with supervisor
- identify site hazards, assess risks and report to supervisor
- identify, tag and report chainsaw faults and malfunctions
- record and implement work health, safety, site, environmental and traffic control measures
- use appropriate personal protective equipment
- safely cross-cut fallen timber using compression and tension cuts with a hand held chainsaw
- use appropriate tools and materials to maintain chainsaw
- use environmentally responsible workplace practices
- use low risk work practices including stopping, disengaging quickly and dealing with foreign matter
- use safe work procedures relevant to operating a chainsaw

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practice for operating chainsaws
- safe operating procedures
- relevant Australian Standards concerning chainsaw operation

- components of chainsaws and their respective functions
- common defects in woody materials
- cutting methods and techniques, patterns and sequence of cuts
- how to estimate and measure dimensions and calculate volumes
- work health and safety requirements for the operation of a chainsaw including caution and hazard signs and symbols
- hazards and risks when operating a chainsaw
- environmental Codes of Practice regarding chainsaw operation

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM214 Operate cane haulage vehicle

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and operate a cane haulage vehicle in the sugar cane production industry.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

Operation of cane haulage vehicles carries risk and all work is carried out to comply with manufacturer's specifications and workplace procedures.

Cane haulage vehicles may include trucks, infield transporters, tractor trailer combinations and other cane transporters.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare cane haulage vehicle	1.1 Conduct routine pre-operational checks appropriately of cane haulage vehicle 1.2 Conduct cabin drill according to enterprise policies 1.3 Identify work health and safety hazards in cane haulage and report to supervisor and implement suitable controls 1.4 Select, use and maintain suitable personal protective equipment
2. Carry out cane haulage operations	2.1 Operate vehicle safely and monitor for performance and efficiency 2.2 Select, haul and deliver cane appropriately 2.3 Identify risks to self, others and the environment and report to supervisor and implement appropriate strategies 2.4 Identify environmental implications for cane haulage and report to the supervisor
3 Complete cane haulage operation	3.1 Complete shut-down procedures to manufacturer's specifications and enterprise requirements 3.2 Complete and maintain records 3.3 Identify and report malfunctions, faults, irregular performance and damage to supervisor 3.4 Clean, secure and store cane haulage vehicle appropriately 3.5 Apply enterprise biosecurity policies as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBAC205A Operate cane haulage vehicle.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM214 Operate cane haulage vehicle

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and apply safe work practices
- operate a variety of pushing and towing haulage vehicles
- demonstrate emergency operating procedures in normal and adverse conditions
- obtain relevant licences and permits
- read and interpret farm maps, operators manuals, manufacturers specifications, work and maintenance plans, and Safety Data Sheets (SDSs)
- check haulage equipment prior to use
- determine operating methods and load from farm maps and instructions
- haul cane safely and efficiently
- identify and report faults or breakdowns
- conduct shutdown procedures
- maintain records
- communicate with supervisor
- follow enterprise work health and safety policies in the context of own work
- follow enterprise biosecurity policies in the context of own work
- follow enterprise sustainability policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- components, controls and features of cane haulage vehicles and their functions
- operating principles and operating methods for cane haulage vehicles
- principles of weight distribution with regard to load shifting and vehicle movement

- risks associated with the operation of cane haulage vehicles in different weather and difficult terrain conditions
- environmental codes of practice with regard the operation of machinery
- legislation and regulations with regard to the operation of cane haulage vehicles and licensing requirements
- cane haulage processes and spillage minimisation techniques
- cane harvesting processes as they relate to collection and haulage of harvests
- enterprise work health and safety, biosecurity and environmental policies and procedures

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM301 Coordinate machinery and equipment maintenance and repair

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate machinery and equipment maintenance and repair for a small enterprise.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
<p>1. Prepare for maintenance and repair work</p>	<p>1.1 Clarify requirements of the work responsibilities with the supervisor</p> <p>1.2 Identify equipment and material resource requirements according to the scope of the coordination work and the supervisor's instructions</p> <p>1.3 Identify, document and present the priorities for maintenance and repair activities and time allocation to the supervisor for verification</p> <p>1.4 Identify the environmental implications of the proposed maintenance and repair work and assess and report the likely outcomes to the supervisor</p> <p>1.5 Identify work health and safety hazards, assess risks and implement risk controls</p> <p>1.6 Select, use and maintain personal protective equipment according to enterprise procedures</p>
<p>2. Maintain and repair machinery and equipment</p>	<p>2.1 Maintain and repair equipment and machinery</p> <p>2.2 Purchase, store and use materials to assist in maintenance and repair work</p> <p>2.3 Organise delivery of materials to the site</p> <p>2.4 Organise machinery and equipment to be on-site in good order when they are required</p> <p>2.5 Identify and organise maintenance and repairs requiring specialist attention</p>
<p>3. Coordinate and report on maintenance and repair activities</p>	<p>3.1 Coordinate resources to suit the maintenance and repair activities and priority of work</p> <p>3.2 Inform operators of their responsibilities in respect to operational maintenance requirements of machinery and equipment</p> <p>3.3 Monitor and document personnel, activities, timelines and materials usage</p> <p>3.4 Recognise and report contingency situations to the supervisor and take corrective actions</p> <p>3.5 Report to management the maintenance and repair activities undertaken and completed</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM301A Coordinate machinery and equipment maintenance and repair.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM301 Coordinate machinery and equipment maintenance and repair

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- perform a work health and safety risk assessment and implement safe work procedures and ensure a safe workplace
- read and interpret documentation associated with work site activities
- seek technical advice on the scale of repairs required where necessary
- establish priorities for work to be carried out
- calculate material and resource requirements
- co-ordinate a team to achieve optimum performance
- respond to contingencies and taking corrective actions where necessary
- document activities, timelines and material usage

Knowledge Evidence

The candidate must demonstrate knowledge of:

- work schedule programming
- possible causes of disruption to work activities and their effect on quality and time schedules
- responsibilities and requirements for maintaining and repairing machinery and equipment
- range, use and availability of materials, equipment and machinery that may be required for the project
- environmental awareness associated with undertaking maintenance and repair work on machinery and equipment to ensure the impact on the environment is minimal
- relevant work health and safety issues, legislative requirements and codes of practice

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM302 Perform machinery maintenance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain machinery and equipment that is used principally in agriculture, horticulture, and conservation and land management work.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to work	1.1 Clarify requirements of the work responsibilities with the supervisor 1.2 Identify equipment and material resource requirements 1.3 Identify work health and safety hazards, assess risks and implement risk controls 1.4 Select, use and maintain personal protective equipment according to enterprise procedures
2. Carry out engine and equipment checks	2.1 Carry out regular engine equipment checks on machinery and equipment 2.2 Lubricate all relevant grease or lubricant points 2.3 Change oils and filters at intervals prescribed in operator manual 2.4 Check hydraulic hoses and systems for deterioration and rectify defects
3. Carry out transmission checks	3.1 Check drive and steering clutches for operation and adjust where required 3.2 Check transmission oil levels 3.3 Check tracks or wheels and undercarriage for oil leaks and wear 3.4 Identify faulty seals or leaks and take corrective actions where required 3.5 Clean machine as a part of maintenance checks
4. Maintain components and attachments	4.1 Check components for wear and condition 4.2 Replace worn or unserviceable replacement components as part of daily routines 4.3 Complete component inspection and replacement activities 4.4 Check moving operational components for wear and condition and adjust to the tolerances specified in operator manual where applicable 4.5 Clean and maintain work areas and return to operating condition 4.6 Collect, treat and dispose or recycle waste from maintenance activities according to enterprise environmental requirements
5. Record maintenance	5.1 Record identified faults and defects in machine record 5.2 Record maintenance procedures including duplicates usage in workshop record 5.3 Report and action service or repair requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM302A Perform machinery maintenance.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOMB02 Perform machinery maintenance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed maintaining machinery and equipment that is used in agriculture, horticulture, or conservation and land management work.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- carry out engine and equipment checks
- carry out transmission checks
- carry out lubrication and replacement of oils and filters
- check machinery and equipment components for wear and tear, replace parts, tag and report defects
- maintain machinery and equipment components
- record details of maintenance and monitoring
- implement enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- engine function principles
- turbo charging and after cooling
- assessing engine specifications in line with power requirements
- engine electric and hydraulic indicators and gauges
- transmission and drive systems
- machinery and equipment operation principles

- environmental impacts of machinery servicing and legislation covering disposal of fuels, oils and other wastes
- relevant work health and safety, environmental legislation, enterprise requirements and codes of practice

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOMB04 Operate machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate and maintain machinery and equipment.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare machinery and	1.1 Identify and report potential workplace health and safety hazards

Element	Performance criteria
equipment for use	1.2 Conduct routine pre operational checks as described in operator manual 1.3 Replace and report damaged or worn components 1.4 Select and use appropriate personnel protective equipment 1.5 Attach ancillary equipment and check for correct operation
2. Operate machinery and equipment	2.1 Operate machinery and equipment in a safe, efficient and controlled manner 2.2 Operate machinery in accordance with task requirements, conditions and manufacturers operating guidelines 2.3 Monitor machinery performance and efficiency and make adjustments as required 2.4 Assess and minimise potential risks to self, others and the environment
3. Check and complete machinery and equipment operation	3.1 Follow shut down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, secure and store machinery 3.5 Maintain machinery use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM304A Operate machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM304 Operate machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed operating and maintaining agricultural or horticultural machinery and equipment.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe operating procedures
- complete pre-operational checks
- attach ancillary equipment and checking for correct operation
- recognise and reporting defects
- operate machinery and equipment to industry standards
- apply safe and environmentally responsible workplace practices
- implement shut down procedures
- clean, secure and store machinery
- record maintenance and operation details

Knowledge Evidence

The candidate must demonstrate knowledge of:

- manufacturers specifications for servicing of machinery and equipment
- operating principles and operating methods for machinery and equipment
- principles of weight distribution with regard to load shifting and machinery movement
- procedures for cleaning, securing and storing machinery, equipment and materials
- potential risks and hazards associated with the operation of machinery and equipment
- environmental impacts and minimisation measures associated with the operation of machinery and equipment

- work health and safety and environmental legislation, regulations and Codes of Practice
- relevant State or Territory legislation, regulations and Codes of Practice with regard to licensing, roads and traffic requirements

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Evidence records must include details of the machinery and equipment that the candidate was assessed on.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM305 Operate specialised machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate specialised machinery and equipment.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select and prepare specialised machinery	1.1 Identify and report potential work health and safety hazards

Element	Performance criteria
and equipment for use	implement control measures. 1.2 Conduct routine pre operational checks as described in operator manual 1.3 Replace and report damaged or worn components 1.4 Select and use appropriate personnel protective equipment 1.5 Attach ancillary equipment and check for correct operation
2. Operate specialised machinery and equipment	2.1 Operate machinery and equipment in a safe, efficient and controlled manner 2.2 Operate machinery and equipment in accordance with task requirements, conditions and manufacturers operating guidelines 2.3 Monitor machinery and equipment performance and efficiency and make adjustments as required 2.4 Assess and minimise potential risks to self, others and the environment
3. Complete and report on specialised machinery and equipment operation	3.1 Follow shut down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, secure and store machinery and equipment 3.5 Maintain machinery and equipment use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM305A Operate specialised machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOMB05 Operate specialised machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed operating specialised agricultural or horticultural machinery and equipment.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- complete pre and post operational checks
- recognise and reporting defects
- operate machinery and equipment in a safe, efficient manner to perform specific tasks by utilising the various component, controls and features to industry standards
- perform minor maintenance and fault finding
- perform shut down procedures
- complete operational records
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- manufacturer's requirements and workplace requirements for:
 - pre-operational checks
 - machinery operation techniques
 - operator level servicing
 - shutdown
- emergency procedures

- basic diagnostic techniques
- equipment characteristics, technical capabilities and limitations
- components and controls features and functions
- relevant work health and safety and environmental legislation, Codes of Practice and enterprise requirements

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Evidence records must include a description of the machinery and equipment that the candidate was assessed on.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOMB06 Ground spread fertiliser and soil ameliorant

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to ground spread fertiliser and soil ameliorants.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability and biosecurity practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Confirm customer	1.1 Confirm with customer that fertiliser or soil ameliorant products

Element	Performance criteria
requirements.	<p>to be spread are those that were ordered</p> <p>1.2 Verify with customer that technical specification of product is acceptable for job</p> <p>1.3 Confirm customer's written fertiliser order with customer and document to enable trace back to depot or factory if required</p> <p>1.4 Document agreement for spreading services according to enterprise or industry codes of practice</p>
2. Identify features of the target area.	<p>2.1 Identify and agree with customer on the location and boundaries of area to be treated and record according to relevant industry codes of practice</p> <p>2.2 Assess visually soil type and condition or seek advice from customer</p> <p>2.3 Identify environmentally sensitive areas and plan operations to ensure minimum adverse impact and compliance with any required buffer zones</p> <p>2.4 Inspect and identify in consultation with customer features that may present a hazard to the operation and take appropriate action as required</p> <p>2.5 Identify in consultation with customer location of services and utilities and adjust proposed spreading operation if required</p> <p>2.6 Identify local weather and climate conditions and take into account when preparing to begin operations</p>
3. Perform pre-spreading checks.	<p>3.1 Determine rate of spreading and calculate buffer zone allowance</p> <p>3.2 Ensure machinery and equipment are clean of soil and/or plant material before it is moved onto site</p> <p>3.3 Prepare machinery and equipment according to enterprise procedures and manufacturer instructions to ensure they are serviceable and are set up and calibrated</p>
4. Spread fertiliser	<p>4.1 Select and fit Personal Protective Equipment (PPE) to be used by operator and all personnel involved in spreading tasks</p> <p>4.2 Apply fertiliser or soil ameliorant in a manner that complies with guidelines on buffer zones and minimises run-off into waterways and drains</p> <p>4.3 Monitor weather and other conditions to ensure that variations that may alter limits to operation are taken into account, and adjust operations as required</p> <p>4.4 Follow any existing site quarantine or biosecurity protocols as required</p> <p>4.5 Monitor all work to ensure that it is performed in an environmentally aware and safe manner and according to industry codes of practice</p>

Element	Performance criteria
5. Perform follow up and clean-up activities on completion of spreading operations	5.1 Return machinery, equipment and hand tools to depot or storage area after cleaning, checking for future serviceability, and carrying out basic preventative maintenance according to enterprise procedures 5.2 Record faults for remedial action 5.3 Complete records according to enterprise procedures and industry codes of practice

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM306A Ground spread fertiliser and soil ameliorant.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM306 Ground spread fertiliser and soil ameliorant

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed operating fertiliser and soil ameliorant spreading equipment.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- communicate with clients to ensure a common understanding of task to be performed
- assess environmental and physical hazards that may be encountered when ground spreading and take appropriate action to minimise these risks
- identify hazards and implement safe work procedures
- use maps and interpret written instructions regarding areas to be spread, and products and rates to be applied
- maintain and operate equipment according to manufacturer recommendations and in line with equipment calibration and industry standards for uniformity of application
- attach ancillary equipment and check for correct operation
- apply fertiliser or soil ameliorants at rate agreed by customer to specified land area
- monitor and record activities performed
- implement shut down procedures, clean, secure, store machinery and record maintenance and operation details
- apply safe and environmentally responsible workplace practices
- apply enterprise biosecurity procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- equipment being used and understanding of appropriate service and safety checks
- environmental risks and how to identify and manage them

- operational limits of equipment being used with regard to uniformity of application and health and safety risks
- spreading characteristics of different fertiliser and soil ameliorant products
- environmental impacts of fertiliser spreading including hazards to waterways
- work health and safety hazards including operating in rough or steep terrain
- operating principles and operating methods for spreading equipment
- procedures for cleaning, securing and storing spreading equipment
- environmental impacts and minimisation measures associated with the operation of spreading equipment
- work health and safety and environmental legislation, regulations and Codes of Practice
- relevant State or Territory legislation, regulations and Codes of Practice with regard to licensing, roads and traffic requirements

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOMB07 Operate a cane harvester

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and operate a cane harvester in the sugar cane production industry.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Identify and report potential work health and safety hazards

Element	Performance criteria
	1.2 Conduct routine pre operational checks as described in operator manual 1.3 Replace and report damaged or worn components 1.4 Select and use appropriate personnel protective equipment 1.5 Carry out cabin drill 1.6 Locate and select crop class, variety and field for harvest
2. Carry out cane harvesting	2.1 Set and operate harvester in a safe, controlled and correct manner and monitored for performance and efficiency 2.2 Operate harvester in co-ordination with haul out vehicles and other associated harvesting equipment 2.3 Harvest cane in a productive, safe and controlled manner and consign correctly 2.4 Anticipate risks to self, others and the environment implement minimisation strategies accordingly 2.5 Identify and asses environmental implications associated with cane harvesting and report to the supervisor
3. Complete cane harvesting operations	3.1 Follow shut down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Sterilise harvester to prevent cross-property contamination 3.5 Secure and store machinery 3.6 Maintain machinery use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM307A Operate a cane harvester.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOMB07 Operate a cane harvester

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed preparing and operating a sugar cane harvester.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe operating procedures
- perform routine safety, basic service and maintenance procedures
- complete pre-operational checks
- recognise and reporting defects
- familiarise self with local conditions
- carry out emergency operating procedures
- operate machinery and equipment to industry standards
- communicate and co-operating with other personnel such as haul-out drivers
- control cane spillage
- sterilise effectively the harvester to prevent cross-property contamination
- use safe and environmentally responsible workplace practices
- maintain operational records
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- components, controls and features of cane harvesters and their functions
- operating principles and operating methods for cane harvesters
- cane harvester processes and spillage minimisation techniques

- legislative requirements with regard to licensing
- harvest and haulage processes and procedures
- principles of the safe removal of obstacles from harvesters and adjustment of harvester settings
- work health and safety and environmental protection legislation, codes of practice and enterprise procedures
- enterprise biosecurity policies
- environmental impacts and minimisation measures

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM308 Operate broadacre and row crop harvest machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate broadacre or row crop harvesting machinery and equipment.

All work must be carried out to comply with workplace procedures, Work Health and Safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare machinery for use	1.1 Identify and report potential work health and safety hazards 1.2 Conduct routine pre operational checks as described in operator manual 1.3 Replace and report damaged or worn components 1.4 Select and use appropriate personnel protective equipment 1.5 Attach ancillary equipment and check for correct operation
2. Operate machinery and equipment	2.1 Operate machinery and equipment in a safe, efficient and controlled manner 2.2 Operate machinery in accordance with task requirements and conditions 2.3 Monitor machinery performance and efficiency and make adjustments as required 2.4 Assess and minimise potential risks to self, others and the environment
3. Complete work	3.1 Follow shut down procedures 3.2 Perform routine operational servicing and minor maintenance 3.3 Identify and report malfunctions, faults, irregular performance or damage 3.4 Clean, secure and store machinery 3.5 Maintain machinery use records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM308A Operate broadacre and row crop harvest machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOMB08 Operate broadacre and row crop harvest machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed operating agricultural or horticultural broadacre or row crop harvesting machinery and equipment.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe operating procedures
- complete pre-operational checks
- perform minor maintenance
- recognise and report defects
- operate machinery and equipment to industry standards
- attach and detach associated equipment
- use safe and environmentally responsible workplace practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- manufacturer's requirements and workplace requirements for:
 - pre-operational checks
 - machinery operation techniques
 - operator level servicing
 - shutdown procedure
 - emergency procedures
 - basic diagnostic techniques
- equipment characteristics, technical capabilities and limitations
- components and controls features and functions

- relevant work health and safety and environmental legislation, Codes of Practice and enterprise requirements

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM309 Operate broadacre sowing machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate broadacre sowing machinery and equipment.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare machinery for use	1.1 Identify and report potential work health and safety hazards 1.2 Select and use appropriate personnel protective equipment 1.3 Conduct routine pre-operational checks and housekeeping tasks 1.4 Replace and report damaged or worn components 1.5 Identify and report potential environmental implications 1.6 Attach ancillary equipment and check for correct operation
2. Operate machinery and equipment	2.1 Operate machinery and equipment in a safe, efficient and controlled manner 2.2 Operate machinery in accordance with task requirements and conditions 2.3 Monitor machinery performance and efficiency and make adjustments as required 2.4 Assess and minimise potential risks to self, others and the environment
3. Complete work	3.1 Follow shut down procedures including biosecurity procedures where required 3.2 Complete operational records 3.3 Carry out routine operator servicing 3.4 Identify and report malfunctions, faults, irregular performance or damage

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM309A Operate broadacre sowing machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOMB09 Operate broadacre sowing machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed operating agricultural or horticultural broadacre sowing machinery and equipment.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- conduct pre and post operational checks
- attach and uncouple associated equipment
- operate broadacre sowing machinery and equipment in a safe, efficient and controlled manner
- perform minor maintenance and fault finding
- record work activities
- minimise environmental impacts of sowing operations
- follow enterprise work health and safety policies
- follow enterprise biosecurity procedures where required

Knowledge Evidence

The candidate must demonstrate knowledge of:

- manufacturer's requirements and workplace requirements for:
 - pre-operational checks
 - machinery operation techniques
 - operator level servicing
 - shutdown

- emergency procedures
- basic diagnostic techniques
- equipment characteristics, technical capabilities and limitations
- components and controls features and functions
- relevant work health and safety and environmental legislation, Codes of Practice and enterprise requirements

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM310 Operate land-forming machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate land forming machinery and equipment.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare machinery for	1.1 Identify and report potential work health and safety hazards

Element	Performance criteria
use	1.2 Select and use appropriate personnel protective equipment 1.3 Conduct routine pre-operational checks and housekeeping tasks 1.4 Replace and report damaged or worn components 1.5 Identify and report potential environmental implications 1.6 Attach ancillary equipment and check for correct operation
2. Operate machinery and equipment	2.1 Operate machinery and equipment in a safe, efficient and controlled manner 2.2 Operate machinery in accordance with task requirements and conditions 2.3 Monitor machinery performance and efficiency and make adjustments as required 2.4 Assess and minimise potential risks to self, others and the environment
3. Complete work	3.1 Follow shut down procedures 3.2 Complete operational records 3.3 Carry out routine operator servicing 3.4 Identify and report malfunctions, faults, irregular performance or damage

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM310A Operate land-forming machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM310 Operate land-forming machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed operating land forming machinery and equipment for agricultural or conservation earthworks purposes.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe operating procedures
- operate land forming machinery and equipment in a safe, efficient and controlled manner
- conduct pre and post operational checks
- attach and uncouple associated equipment
- perform minor maintenance and fault finding
- record work activities
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- manufacturer's requirements and workplace requirements for:
 - pre-operational checks
 - machinery operation techniques
 - operator level servicing
 - shutdown
 - emergency procedures
- basic diagnostic techniques
- equipment characteristics, technical capabilities and limitations

- components and controls features and functions including precision controls
- general land forming concepts and practices including:
 - contouring, surface drainage and erosion
 - slope requirements
 - survey and set out
- relevant work health and safety and environmental legislation, Codes of Practice and enterprise requirements

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM311 Operate precision control technology

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate precision technology used in the control of specialised machinery and equipment. This unit is used to optimise specialised machinery performance.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare precision technology for use	1.1 Identify and report work health and safety hazards 1.2 Complete routine pre-operational checks 1.3 Carry out and record minor routine servicing and housekeeping tasks 1.4 Check ancillary equipment for correct operation 1.5 Check that data complies with job specifications
2. Use precision technology	2.1 Operate technology in accordance with task requirements and conditions 2.2 Monitor activities to ensure that machinery is operating in an efficient and controlled manner and make adjustments as required 2.3 Assess and minimise potential risks to self, others and the environment during operation
3. Complete work	3.1 Follow shutdown procedures 3.2 Download data and complete operational records 3.3 Perform basic diagnostic procedures 3.4 Identify and report malfunctions, faults and irregular performance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM311A Operate precision control technology.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOMB11 Operate precision control technology

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed operating agricultural or horticultural machinery using precision technology.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and report work health and safety hazards
- conduct pre-operational checks
- use technology to operate machinery in an efficient and controlled manner
- perform routine maintenance tasks
- perform basic diagnostic procedures
- download and upload data for the task

Knowledge Evidence

The candidate must demonstrate knowledge of:

- manufacturer specifications and requirements for:
- pre-operational checks
- precision instrument controls, feature and functions
- minor servicing
- uploading and downloading of data
- diagnostic techniques for operational performance
- characteristics, technical capabilities and limitations of associated machinery and equipment
- components and controls features and functions of equipment

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOMB12 Operate row crop planting and seeding machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate row crop planting and seeding machinery and equipment.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare machinery for use	1.1 Identify and report work health and safety hazards 1.2 Select and use appropriate personnel protective equipment 1.3 Carry out and record routine pre-operational checks and housekeeping tasks 1.4 Replace and record damaged or worn components 1.5 Attach ancillary equipment and check for correct operation
2. Operate machinery and equipment	2.1 Operate machinery and equipment in a safe, efficient and controlled manner 2.2 Operate machinery in accordance with task requirements and conditions 2.3 Monitor machinery performance and efficiency and make adjustments as required 2.4 Assess and minimise potential risks to self, others and the environment
3. Complete work	3.1 Follow shut down procedures including biosecurity procedures where required 3.2 Complete operational records 3.3 Carry out routine operator servicing 3.4 Identify and report malfunctions, faults, irregular performance or damage

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM312A Operate row crop planting and seeding machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOMB12 Operate row crop planting and seeding machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed operating agricultural or horticultural row crop planting and seeding machinery and equipment.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implementing safe work procedures
- conduct pre and post operational checks
- operate planting and seeding machinery and equipment in a safe, efficient and controlled manner
- perform minor maintenance and fault finding
- follow planting requirements
- attach and uncoupling associated equipment
- record work activities
- follow enterprise work health and safety policies
- follow enterprise biosecurity procedures where required.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- manufacturer's requirements and workplace requirements for:
- pre-operational checks
- machinery operation techniques
- operator level servicing
- shutdown
- emergency procedures

- precision agriculture and controlled traffic
- diagnostic techniques for operational performance
- equipment characteristics, technical capabilities and limitations
- components and controls features and functions of equipment
- work health and safety legislation and requirements for operators
- risks to environment from operating sowing equipment for row crops.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM313 Operate mobile irrigation machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate mobile irrigation machinery and equipment.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare machinery for use	1.1 Select and use appropriate personnel protective equipment 1.2 Conduct routine pre-operational checks and housekeeping tasks 1.3 Replace or report damaged or worn components 1.4 Identify and report potential work health and safety hazards 1.5 Identify and report potential environmental implications 1.6 Attach ancillary equipment and check for correct operation
2. Operate machinery and equipment	2.1 Operate machinery and equipment in a safe, efficient and controlled manner 2.2 Operate machinery in accordance with task requirements, conditions and manufacturers operating guidelines 2.3 Monitor machinery performance and efficiency and make adjustments as required 2.4 Assess and minimise potential risks to self, others and the environment
3. Complete work	3.1 Follow shut down procedures 3.2 Complete operational records 3.3 Carry out routine operator servicing 3.4 Identify and report malfunctions, faults, irregular performance or damage

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM313A Operate mobile irrigation machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM313 Operate mobile irrigation machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and report potential work health and safety hazards
- conduct pre-operational checks
- operate mobile irrigation machinery and equipment in a safe, efficient and controlled manner
- perform operator maintenance tasks
- attach and uncouple associated equipment
- follow enterprise work health and safety policies
- record work activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- manufacturer's requirements and workplace requirements for:
 - pre-operational checks
 - machinery operation techniques
 - operator level servicing
 - shutdown
 - emergency procedures
- diagnostic techniques for operational performance
- equipment characteristics, technical capabilities and limitations
- components and controls, features and functions

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOMB14 Transport machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to safely move, load and secure machinery for the purpose of transport.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Load machines	1.1 Access and comply with the enterprise safe operating procedures

Element	Performance criteria
	<p>for transporting machinery</p> <p>1.2 Prepare trailer, low loader or float for loading according to contractor policy</p> <p>1.3 Load machine in compliance with safe operating procedures</p> <p>1.4 Complete tying down procedures in line with recognised industry procedures</p> <p>1.5 Secure machine to prevent movement in transport according to industry practice</p> <p>1.6 Display signs indicating oversized loads according to legal requirements</p> <p>1.7 Arrange permits, clearances and escorts for transporting oversized loads</p>
2. Transport machines	<p>2.1 Drive machines on or off road in compliance with relevant legislation</p> <p>2.2 Load and drive machinery safely to destination in compliance with relevant legislation</p> <p>2.3 Ensure selected transport route for oversized loads complies with permits, clearances and relevant legislation</p> <p>2.4 Unload machines safely in line with accepted workplace policy</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM314A Transport machinery.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM314 Transport machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed loading, transporting and unloading large machinery such as that used for earthmoving or agricultural operations.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- load and unload earthmoving machines
- secure machinery as a transport load
- provide an escort to wide loads
- arrange permits and escorts as required by legislation
- drive machinery to destination, complying with requirements for moving wide loads
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- provisions, requirements and legislation pertaining to heavy transport
- principles for machine operation
- tying down procedures for large machinery
- work health and safety, vehicle and operator licensing, and road transport legislation
- environmental legislation, codes of practice and enterprise requirements

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM315 Operate chemical application machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate specialised liquid and granular chemical application machinery and equipment.

All work must be carried out to comply with workplace procedures, work health and safety requirements manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare machinery for use	1.1 Select and use appropriate personal protective equipment 1.2 Conduct routine pre-operational checks and housekeeping tasks 1.3 Replace and report damaged or worn components 1.4 Identify and report potential work health and safety hazards 1.5 Identify and report potential environmental impacts 1.6 Set up and calibrate equipment in accordance with spray application plan 1.7 Attach ancillary equipment and check for correct operation 1.8 Undertake and record pre-operational checks
2. Operate machinery and equipment	2.1 Operate machinery and equipment in a safe, efficient and controlled manner 2.2 Operate machinery in accordance with task requirements, conditions and manufacturers operating guidelines 2.3 Monitor machinery performance and efficiency and make adjustments as required 2.4 Assess and minimise potential risks to self, others, product integrity and the environment 2.5 Assess and minimise spray drift risk 2.6 Monitor meteorological conditions before and during application and respond to changes in conditions 2.7 Wear appropriate personal protective equipment during operation and clean up
3. Complete work	3.1 Follow shut down procedures 3.2 Flush and clean components in accordance with manufacturer's specifications and chemical label requirements 3.3 Complete operational records in accordance with legislative and regulatory requirements 3.4 Undertake routine operator servicing 3.5 Identify and report malfunctions, faults, irregular performance or damage

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM315A Operate chemical application machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM315 Operate chemical application machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed calibrating, operating and cleaning specialised liquid and granular chemical application machinery and equipment.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- conduct pre and post operational checks
- calibrate and set up application components
- operate machinery in a safe, efficient and controlled manner
- perform operator maintenance tasks and fault finding
- attach and uncouple associated equipment
- assess and minimise spray drift risk
- record work activities
- follow enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- manufacturers specifications and workplace requirements for:
 - pre-operational checks
 - machinery operation techniques
 - operator level servicing
 - shutdown emergency procedures
- features and functions of application equipment components including:

- liquid spray - nozzles, tanks, agitation systems, pumps, filters, pressure regulation valves
- granular applicators/dusters - hoppers, flow control valves
- effects of meteorological conditions on chemical application
- equipment characteristics, technical capabilities and limitations
- basic diagnostic techniques
- equipment characteristics, technical capabilities and limitations
- components and controls features and functions of equipment
- environmental impacts including spray drift

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM316 Refuel machinery or vehicle

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to receive and store bulk fuel, and refuel machinery or vehicle.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Receive and store bulk	1.1 Identify regulatory and industry requirements for the receipt and

Element	Performance criteria
fuel	<p>storage of bulk fuel, and refuelling operations</p> <p>1.2 Identify work health and safety hazards, assess risks and implement suitable controls</p> <p>1.3 Identify dangers of volatile fuel liquids and vapours</p> <p>1.4 Locate and check firefighting and spill response equipment, and replace faulty equipment</p> <p>1.5 Ensure facilities for storage of bulk fuel meet national standards</p> <p>1.6 Check bulk fuel storage facilities to ensure fuel quality is maintained during storage</p> <p>1.7 Check storage facilities and refuelling equipment for leaks.</p> <p>1.8 Receive bulk fuel into storage, in compliance with regulatory requirements and enterprise policies</p> <p>1.9 Complete documentation for receipt of bulk fuel if required</p> <p>1.10 Monitor bulk fuel during storage to maintain fuel quality and usage</p>
2. Prepare for refuelling	<p>2.1 Select, maintain and use personal protective equipment</p> <p>2.2 Select fuel based on machinery or vehicle use and manufacturer instructions</p> <p>2.3 Ensure appropriate firefighting and spill response equipment are accessible</p> <p>2.4 Ensure appropriate refuelling equipment is available and meets national standards</p> <p>2.5 Check and secure refuelling equipment</p> <p>2.6 Position and secure machinery or vehicle for refuelling</p>
3. Refuel machinery or vehicle from fixed storage	<p>3.1 Open tank valves if necessary</p> <p>3.2 Refuel machinery or vehicle in compliance with regulatory requirements and manufacturer instructions</p> <p>3.3 Ensure there is no residual fuel in fuel transfer equipment such as hoses</p> <p>3.4 Contain spills and mitigate environment or safety dangers if required, in compliance with legislation and enterprise policies</p> <p>3.5 Check fuel levels</p> <p>3.6 Close and secure tank valves if necessary</p>
4. Refuel machinery or vehicle from portable containers	<p>4.1 Ensure only approved containers are used to transport decanted fuel</p> <p>4.2 Ensure portable containers being towed are secure</p> <p>4.3 Check containers to ensure fuel quality is maintained</p> <p>4.4 Decant fuel from fixed storage into containers ensuring potential risks are minimised</p> <p>4.5 Ensure there is no residual fuel in fuel transfer equipment for all</p>

Element	Performance criteria
	decanting procedures 4.6 Transport containers to worksite following codes of practice or guidelines 4.7 Decant fuel from portable containers using appropriate equipment 4.8 Contain spills and mitigate environment or safety dangers if required, in compliance with legislation and enterprise policies
5. Complete refuelling	5.1 Clean, maintain and store refuelling equipment and containers 5.2 Complete documentation and records if required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOMB16 Refuel machinery or vehicle

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- receive and store bulk fuel
- prepare for refuelling
- refuel machinery or vehicle from fixed storage
- refuel machinery or vehicle from portable containers
- complete refuelling
- apply relevant work health and safety requirements
- apply relevant industry and enterprise environmental sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- regulatory and industry requirements for the receipt and storage of bulk fuel, and refuelling operations
- relevant work health and safety requirements
- types, use and maintenance of personal protective equipment
- types, features and use of fuels for relevant machinery and vehicles
- requirements, types, features and use of bulk fuel receipt and storage facilities
- relevant legislation for storage of fuels
- requirements and procedures of checking fuel storage facilities, refuelling equipment and fuel transfer equipment for leaks
- risks and dangers associated with volatile fuel liquids and vapours, and mitigation and protection measures

- requirements, types, features, use and maintenance of firefighting and spill response equipment
- requirements, types, features, use, maintenance and storage of fuel transfer and refuelling equipment
- requirements and procedures for refuelling of relevant machinery and vehicles
- methods and procedures for securing portable fuel containers during transport
- procedures for emptying fuel transfer equipment such as hoses and checking that they are empty of residual fuel
- requirements, containment methods and equipment for fuel spills
- mitigation and protection measures for the environment in fuel spills
- required documentation and records
- industry and enterprise environmental sustainability practices

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM401 Conduct major repair and overhaul of machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to conduct major repair and overhaul of machinery and equipment.

This unit applies to those working in a technical role to ensure that machinery and equipment for the enterprise is repaired or overhauled in a way that allows the core business of the enterprise to continue with minimal disruption.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to carry out major repairs and overhaul of machinery and equipment	1.1 Identify major repairs and overhaul requirements for machinery and equipment and organise resources according to manufacturer's recommendations and enterprise requirements 1.2 Identify, access and confirm tools and equipment against job requirements 1.3 Risk assess and control potential and existing hazards in the workplace according to work health and safety and enterprise requirements 1.4 Use and maintain suitable personal protective equipment according to work health and safety and enterprise requirements
2. Conduct major repairs and overhaul of machinery and equipment	2.1 Confirm machinery and equipment faults and malfunctions 2.2 Estimate scope and costing for repairs or overhaul and present for approval by management 2.3 Implement repair and replacement process for major repairs 2.4 Identify worn or damaged parts in need of overhaul and remove and overhaul 2.5 Consult appropriate personnel as necessary in regard to overhaul requirements and major repairs
3. Carry out advanced welding repairs and workplace engineering	3.1 Identify work health and safety hazards, assess risks and implement, monitor and review risk controls 3.2 Select, set up and start cutting and welding equipment and materials 3.3 Conduct cutting and welding to industry and safety standards 3.4 Carry out workplace engineering tasks to modify design or manufacture parts
4. Complete major repairs and overhaul operation	4.1 Shut down, adjust, clean and store tools and equipment 4.2 Collect, treat and dispose or recycle waste from repair and maintenance activities according to enterprise environmental requirements 4.3 Clean, maintain and return work areas to operating condition 4.4 Record breakdowns, major repairs, overhauls, incidents and work conducted

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM401A Conduct major repair and overhaul of machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM401 Conduct major repair and overhaul of machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed undertaking major repair and overhaul of machinery and equipment in a manner that allows the core business of the enterprise to continue with minimal disruption.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify potential and existing hazards in the workplace and implement control measures
- plan for and meet seasonal deadlines
- identify the most effective and economic option in the replacement, repair and overhaul of components
- select and use tools and materials appropriate to the task
- recognise and replace deteriorated or worn parts
- disassemble and reassemble parts and components of machinery and equipment use and maintain welding and thermal cutting equipment
- diagnose faults
- determine appropriate cutting and welding techniques
- operate welding equipment safely and effectively

Knowledge Evidence

The candidate must demonstrate knowledge of:

- assemblies and components of drive, electrical and hydraulic systems
- operational requirements of machinery and equipment
- detailed knowledge of mechanics and equipment operating systems
- storage and use of welding equipment

- work health and safety legislative and enterprise requirements
- environmental codes of practice with regard to the major repair of machinery and equipment

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM402 Supervise maintenance of property, machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise maintenance of property, machinery and equipment.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgement in the selection, allocation and use of available resources and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare maintenance plan	1.1 Identify maintenance requirements for property, machinery and equipment from relevant information sources 1.2 Identify and quantify maintenance costs 1.3 Check maintenance requirements against warranty, insurance agreements and indemnity provisions 1.4 Develop a maintenance plan to promote and sustain performance and production systems in line with enterprise requirements 1.5 Establish an effective workplace communication strategies with regard to maintenance plan, environmental and work health and safety policies, and enterprise requirements
2. Implement maintenance plan	2.1 Identify, secure and include resource and supply requirements in enterprise budgets and operational considerations 2.2 Communicate prepared maintenance schedules and procedures effectively to staff, contractors and suppliers 2.3 Implement and schedule a maintenance plan to minimise disruption to enterprise operations 2.4 Assess potential risks with regard to staff and supply problems, and prepare contingency plans accordingly 2.5 Align tasks required to staff capability and provide training where required 2.6 Confirm machinery and equipment is operated to manufacturer's specifications, work health and safety and enterprise requirements
3. Monitor maintenance plan	3.1 Monitor maintenance activities and performance against maintenance plan for efficiency and effectiveness 3.2 Monitor and control workplace hazards and environmental implications associated with maintenance procedures in line with work health and safety and enterprise requirements 3.3 Monitor and control costs within enterprise budget requirements 3.4 Document relevant information with regard to the maintenance plan in accordance with enterprise requirements 3.5 Ensure property, machinery and equipment are maintained in clean and safe operational conditions

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM402A Supervise maintenance of property, machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM402 Supervise maintenance of property, machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards, implement risk control strategies and oversee safe work practices
- plan, cost and schedule maintenance requirements
- order materials and allocating resources
- deal with contingencies and reschedule maintenance where necessary
- establish and monitor performance targets for maintenance team
- monitor and report on performance of maintenance activities
- dispose of waste products appropriately
- communicate effectively with work team, contractors and management
- implement enterprise work health and safety and environmental policies
- provide on job training /mentoring

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of maintenance requirements with regard to property, machinery and equipment
- maintenance and servicing cycles for property, machinery and equipment
- relevant State or Territory legislation, regulations and Codes of Practice with regard to work health and safety, environmental protection requirements, and the use and control of hazardous substances
- principles of hazard identification and risk management in the work place
- principles of on the job training and mentoring

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM501 Manage machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage machinery and equipment.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Evaluate machinery	1.1 Review and match operations of available machinery and

Element	Performance criteria
and equipment	<p>equipment to production processes</p> <p>1.2 Calculate operation and servicing costs of machinery and equipment to justify total purchasing price</p> <p>1.3 Estimate productivity returns from machinery and equipment to identify benefit to production processes</p> <p>1.4 Monitor machinery and equipment replacement cycles to identify improvement options and maximise life cycles of components</p> <p>1.5 Acquire machinery and equipment through appropriate procurement options</p>
2. Coordinate maintenance	<p>2.1 Identify and schedule maintenance and service cycles to ensure servicing is according to manufacturer's specifications and production processes</p> <p>2.2 Cost and arrange storing and housing of machinery and equipment</p> <p>2.3 Document and record operational and service history</p> <p>2.4 Identify and risk assess work health and safety hazards in the workplace and review and record risk controls</p> <p>2.5 Provide, use, maintain and store suitable personal protective equipment according to work health and safety requirements</p> <p>2.6 Develop and monitor repair and maintenance routines according to manufacturer's specifications and work health and safety requirements</p>
3. Monitor operation	<p>3.1 Make available, maintain and dispose of consumables and operational support materials according to enterprise requirements</p> <p>3.2 Monitor environmental implications and workplace safety practices according to enterprise requirements</p> <p>3.3 Ensure operational procedures are clear, documented and followed according to manufacturer's specifications</p> <p>3.4 Provide operators with competent instruction and appropriate supervision according to work health and safety requirements</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM501A Manage machinery and equipment.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM501 Manage machinery and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe systems of work
- monitor machinery and equipment operations
- evaluate machinery and equipment
- develop machinery and equipment operation and maintenance procedures in compliance with environmental Codes of Practice and work health and safety and hazardous substances legislation
- schedule, supervise and record the service and maintenance of machinery and equipment
- monitor machinery and equipment operations and maintenance, and review risk assessments periodically to ensure a safe operating environment
- assess staff capability in machinery maintenance and operation, and provide training and mentoring

Knowledge Evidence

The candidate must demonstrate knowledge of:

- servicing and maintaining machinery and equipment within area of responsibility
- methods of calculating the cost of machines and their contribution
- training and instruction techniques for directing the learning of staff
- relevant work health and safety and environmental issues, legislative requirements and Codes of Practice
- work health and safety hazard identification, risk assessment and developing risk controls
- environmental legislation and Codes of Practice with regard to maintenance of machinery and equipment, disposal of wastes and hazardous substances
- legislative and enterprise requirements for work health and safety

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM502 Implement a machinery management system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a machinery management system.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify machinery and equipment	1.1 Identify machinery and equipment requirements of the enterprise

Element	Performance criteria
requirements for the enterprise	1.2 Evaluate alternative options to machinery ownership for applicability 1.3 Identify and address storage and housing requirements for machinery and equipment 1.4 Monitor and assess machinery innovations for applicability 1.5 Maintain inventory of machinery and equipment as required by the enterprise
2. Select and manage the range of machinery services provided by off-farm suppliers	2.1 Identify services to be provided by off-property suppliers 2.2 Develop criteria to select and monitor the provision of services 2.3 Record and monitor agreements and transactions
3. Manage machinery maintenance	3.1 Determine machinery and equipment maintenance requirements from manufacturer's instructions and establish maintenance schedules 3.2 Establish systems for recording machinery use and maintenance 3.3 Monitor machinery maintenance to ensure adherence to schedules and manufacturer's instructions
4. Manage machinery and equipment operation	4.1 Monitor and record machinery and equipment use according to enterprise requirements 4.2 Monitor machinery operation to ensure compliance with manufacturer's instructions 4.3 Determine procedures for the safe operation of machinery and monitor and ensure adherence to safe procedures 4.4 Train staff in machinery safe operation and procedures for the maintenance of machinery

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHC/MOM502A Implement a machinery management system.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM502 Implement a machinery management system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed establishing and managing a machinery management system.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and managing safe systems of work
- identify machinery and equipment requirements for the property or enterprise
- select and manage the range of machinery services provided by off-farm suppliers
- manage machinery and equipment operation
- manage machinery maintenance

Knowledge Evidence

The candidate must demonstrate knowledge of:

- cultural operations and their associated machinery requirements
- costs associated with the use of machinery
- maintenance requirements of machinery and equipment
- storage and housing requirements of machinery
- safe operating procedures for machinery
- systems for monitoring machinery maintenance and operation
- licensing requirements for the operation of machinery
- work health and safety and environmental legislation, codes of practice and enterprise requirements
- principles of staff training

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCMOM601 Analyse machinery options

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to analyse machinery options within an agricultural, horticultural or land management enterprise.

All work must be carried out to comply with workplace procedures, work health and safety requirements and manufacturer's specifications.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse information and exercise judgement to complete a range of advanced skilled activities. They work in contexts that are subject to change and adapt a range of fundamental principles accordingly.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Machinery operation and maintenance (MOM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Calculate costs	1.1 Calculate overhead, operating and intangible costs related to

Element	Performance criteria
associated with machinery use	machinery 1.2 Source and compare relevant benchmark data that relates machinery costs to enterprise productivity to own enterprise data 1.3 Make comparison of productivity and suitability of different types and brands of machinery
2. Review machinery requirements	2.1 Review machinery inventory in the context of the goals of the business and current and future productivity and profitability levels 2.2 Identify, cost and evaluate alternatives to ownership 2.3 Identify tax impact of the capital investment through appropriate professional support and incorporated into the analysis 2.4 Assess and control risks associated with high capital investment in machinery in making machinery decisions
3. Analyse returns from major capital investments in machinery	3.1 Use capital budgeting techniques including energy efficiency to calculate the rate of return on major investment decisions 3.2 Review machinery options plan and analysis and record changes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCMOM601A Analyse machinery options.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCMOM601 Analyse machinery options

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- calculate costs associated with machinery
- review machinery inventory and requirement
- evaluate and cost options
- assessing investment risk
- budget and incorporate benchmarks
- calculate returns from major capital investments in machinery
- compare the productivity and suitability of different types and brands of machinery
- analyse the financial costs, tax impact and investment risk for different types of machinery
- document the analysis and defining the preferred option
- review the investment plan and analysis of options

Knowledge Evidence

The candidate must demonstrate knowledge of:

- benchmarking practices and procedures, including energy efficiency, carbon footprint and water use efficiency
- capital budgeting techniques
- relevant taxation provisions relating to investment
- risks associated with investments
- analysis and planning processes

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR101 Support natural area conservation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to support natural area conservation.

All work is undertaken according to work site guidelines and supervisor's instructions, and in a safe and environmentally appropriate manner.

This unit applies to individuals who assist others undertaking conservation works in areas such as parks, natural areas, agricultural lands or areas undergoing rehabilitation.

This unit applies to individuals who work under close supervision and undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare materials, tools and equipment for conservation work	1.1 Identify materials, tools and equipment required for job 1.2 Conduct checks on materials, tools and equipment and report insufficient or faulty items 1.3 Demonstrate correct manual handling techniques when loading and unloading materials 1.4 Select and check suitable personal protective equipment 1.5 Identify work health and safety hazards and tell supervisor
2. Undertake conservation and revegetation work as directed	2.1 Follow instructions and directions and seek clarification when necessary 2.2 Carry out conservation and revegetation work in accordance with work health and safety and biosecurity policies and procedures and environmentally sustainable practices 2.3 Interact with others in a positive and professional manner 2.4 Follow handling and disposal of materials policy and procedures 2.5 Report difficulties in completing work to required standards or timelines
3. Store and stockpile materials	3.1 Store plant debris and waste material in a designated area 3.2 Prepare and process plant debris and waste materials 3.3 Stockpile surplus materials for removal 3.4 Maintain a clean and safe work site while completing conservation activities
4. Clean up on completion of conservation work	4.1 Store plants and materials in a designated area 4.2 Clean, maintain and store tools and equipment 4.3 Report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR101A Support natural area conservation.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR101 Support natural area conservation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare tools and equipment according to organisational requirements
- provide support for natural area conservation work
- stockpile waste materials for removal according to organisational requirements
- clean up site, tools and equipment
- conduct all work according to work health and safety and organisational requirements
- apply biosecurity measures in the context of own work
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- tools and equipment used in conservation work
- revegetation techniques including planting, direct seeding, assisted natural regeneration and protection of remnant vegetation
- personal protective equipment required for conservation work
- biosecurity measures and sustainability practices required for own work

Assessment Conditions

Assessors must satisfy current standards for assessment.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR102 Support native seed collection

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to support native seed collection across a range of landscapes and environments.

All work is done according to work site guidelines and supervisor's instructions, and in a safe and environmentally appropriate manner in accordance with relevant legislation and regulations.

This unit applies to individuals who work under close supervision and undertake defined activities and work in a structured context.

Licensing conditions and permissions or approvals apply to the collection of native seed. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for	1.1 Identify materials, tools and equipment required

Element	Performance criteria
native seed collection	1.2 Conduct checks on materials, tools and equipment and report insufficient or faulty items 1.3 Demonstrate correct manual handling techniques when loading and unloading materials 1.4 Select and check suitable personal protective equipment 1.5 Identify work health and safety hazards and tell supervisor 1.6 Confirm licensing and regulatory requirements for seed collection activities
2. Support native seed collection	2.1 Follow work health and safety, environmental sustainability and biosecurity policies and procedures when undertaking seed collection activities 2.2 Provide assistance to support the activities of others, follow supervisor instructions, and seek clarification when necessary 2.3 Provide support to collect seeds from a range of plants and from different areas of plants 2.4 Provide assistance to check seeds for diseases and pests, separate seeds from other materials and weigh and store the seeds 2.5 Place seed in clean containers and label the containers as directed by a supervisor 2.6 Record seed information
3. Clean up on completion of seed collection work	3.1 Store seeds and plant materials 3.2 Clean, maintain and store tools and equipment 3.3 Report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR102A Support native seed collection.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR102 Support native seed collection

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow directions from supervisor to collect, extract, weigh and record seed
- apply safe work practices in collecting seed
- provide seed collecting support to others
- prepare, use and clean tools and equipment for seed collection
- conduct all work to organisational standards, environmental sustainability and biosecurity policies and procedures and work health and safety requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- applicable Commonwealth, State or Territory licensing required as they apply to own role
- range of processes for collecting, treating and storing seed
- organisational and site standards, requirements, policies and procedures for collecting seed
- seed collecting resources and equipment and procedures for their safe use, operation and maintenance
- recording and reporting requirements
- safety and environmental hazards associated with the collection, treatment and storage of seed
- range of seed species required for collection
- seed treatments and storage requirements for seed species collected
- types of diseases and pests likely to infect a range of seed species

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR201 Carry out natural area restoration works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out natural area restoration work.

This unit applies to supervised workers in land management programs.

All work is undertaken to supervisor instructions, according to the restoration plan and enterprise work procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare for natural area restoration works	1.1 Locate task site using natural area restoration or revegetation plans 1.2 Identify environmental implications of works and assess and report the likely outcomes 1.3 Select, prepare and transport tools, equipment and machinery for use and confirm native plant species to be re-established 1.4 Carry out pre-operational and safety checks on tools, equipment and machinery 1.5 Use and maintain personal protective equipment
2. Apply weed control measures	2.1 Identify weeds requiring control 2.2 Prepare herbicides 2.3 Undertake weed control measures according to the weed and non-target species characteristics 2.4 Ensure control measures damage only the target weed species
3. Prepare the soil for natural area restoration	3.1 Select soil treatments according to the soil condition and species requirements 3.2 Protect intact natural soil profiles from damage 3.3 Apply soil treatments either broadly or at specific sites in accordance with work health and safety policies and procedures
4. Replace native vegetation on the site	4.1 Determine vegetation replacement methods and prepare assisted natural regeneration, planting, seeding or transplanting treatments 4.2 Apply assisted regeneration treatments to remnant vegetation and intact soil profiles 4.3 Sow seed either by hand in discrete areas or broadly using sowing or ripping trailed machinery 4.4 Position containerised plants or transplants and plant firmly ensuring good contact between roots and surrounding soil 4.5 Undertake hand watering or irrigation 4.6 Use plant guards and fencing to protect plants, where necessary 4.7 Carry out all tasks according to work health and safety policies and procedures
5. Complete natural area restoration work	5.1 Install and maintain plant guards or fencing 5.2 Undertake follow up weed control treatments 5.3 Remove and dispose of waste material 5.4 Clean, maintain and store tools, equipment and machinery 5.5 Maintain a clean and safe area 5.6 Carry out all tasks according to work health and safety policies and procedures

Element	Performance criteria
	5.7 Report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR201A Carry out natural area restoration works.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR201 Carry out natural area restoration works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- establish the task and site with supervisor by referring to a revegetation plan
- carry out weed control and ground preparation as part of a team
- transport tools, plants and planting materials to the site
- carry out planting and regeneration techniques to organisational standards
- protect the restored area with plant guards and fencing
- remove any waste at the end of the job and clean site to pre-work condition
- carry out all work according to organisational standards and work health and safety requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- common names of native plants and animals present in restoration area
- common names of weeds and pest animals present in restoration area
- the importance and value of the local provenance species
- natural area restoration techniques
- enterprise requirements for natural area restoration works

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR202 Maintain wildlife habitat refuges

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain wildlife habitats and refuges to protect desirable animal species from predators.

All work is undertaken in accordance with statutory and local authority requirements.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess the scope of the	1.1 Identify species to be protected and determine their behaviour

Element	Performance criteria
refuge maintenance job	pattern 1.2 Identify characteristics of refuges required for target species 1.3 Determine locations of refuges 1.4 Estimate time to complete the work 1.5 Identify environmental risks associated with the work 1.6 Determine vehicles, equipment and materials required to complete the work
2. Prepare for the refuge maintenance job	2.1 Determine location and boundaries for the wildlife habitat refuge maintenance job in accordance with the pest management strategy and monitoring program 2.2 Conduct safety risk assessment and apply work health and safety policies and procedures 2.3 Take precautions to minimise environmental and biosecurity risks associated with the work 2.4 Check vehicles, equipment and materials for serviceability and cleanliness in accordance with manufacturer specifications and relevant enterprise policies
3. Maintain wildlife habitat refuges for protection of desirable species from predators	3.1 Operate vehicles and equipment in accordance with manufacturer and organisational procedures 3.2 Maintain wildlife habitat refuges in accordance with industry practice and environmental statutory requirements 3.3 Implement strategies to control vertebrate pests in a wildlife habitat 3.4 Identify harbours used by pest animals and notify supervisor 3.5 Dispose of debris from site in accordance with industry practice and environmentally sustainable and work health and safety policies and procedures
4. Clean and store equipment and material	4.1 Clean and store equipment and materials to enterprise and environmental standards in order to maintain biosecurity of area 4.2 Record job completion according to relevant policies and procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR202A Maintain wildlife habitat refuges.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR202 Maintain wildlife habitat refuges

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- maintain wildlife habitats and refuges to protect desirable animal species from predators
- identify native species that are present in the wildlife refuge
- confirm the features required for a wildlife habitat refuge
- provide harbors and modify habitat where necessary to provide refuge for native species
- assess the risk of vertebrate pest predators within the refuge
- implement strategies to control vertebrate pests in a wildlife habitat as directed by supervisor
- apply work health and safety practices in the context of own work
- apply biosecurity measures in the context of own work
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- vertebrate predators present in local area
- harbours used by vertebrate pests
- wildlife habitats used by desirable animal species
- wildlife habitat modification techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR301 Maintain natural areas

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain natural areas.

This unit applies to workers on land management projects who carry out the maintenance of natural areas.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan maintenance works	1.1 Plan movement through place to minimise disturbance and degradation

Element	Performance criteria
	1.2 Identify legislative requirements, codes of practice and the relevant management strategy and plan 1.3 Identify relevant environmental factors in maintenance works 1.4 Consult stakeholders about pending maintenance works 1.5 Determine and obtain equipment, machinery and materials for maintenance works 1.6 Conduct pre operational machinery checks according to environmental, biosecurity and safety requirements
2. Undertake maintenance	2.1 Follow enterprise work health and safety, environmentally sustainability and biosecurity policies and procedures when undertaking maintenance work 2.2 Undertake maintenance and rehabilitation works according to plans 2.3 Ensure maintenance works conform to relevant risk control measures and practices 2.4 Take interim protective measures to avoid degradation and disturbance during maintenance works 2.5 Monitor activities of personnel and visitors to reduce risks to the significance of the place
3. Complete of activities	3.1 Clean and restore site on completion of works 3.2 Clean and store equipment and machinery 3.3 Remove and store or dispose of excess materials from site according to organisational requirements 3.4 Report completed maintenance works to supervisor according to organisational and legislative requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR301A Maintain natural areas.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR301 Maintain natural areas

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare to carry out maintenance activities in a manner which minimises damaging impacts to site
- consult with stakeholders, including traditional owners about pending maintenance works
- carry out agreed maintenance works with minimal damaging impacts to environment
- select and apply protective structures, devices and signs
- clean up the site and remove surplus materials and waste
- report completion of activities to supervisor
- apply work health and safety practices in the context of own work
- apply biosecurity measures in the context of own work
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental factors to be considered in maintenance works, including:
 - ecology in land based, coastal zones or marine parks
 - marine, shore and land based species
 - natural and human threats to places of natural significance
 - pollution sources and damage potential
- basic protection and rehabilitation methods
- enterprise procedures for reporting maintenance works
- applicable State or Territory and Commonwealth legislation covering parks, conservation, environmental protection and heritage

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR302 Collect and preserve biological samples

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect and preserve biological samples as part of a monitoring program.

This unit applies to individuals who most likely work under limited supervision from others with checking only related to overall progress.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan for collection	1.1 Confirm the purpose of sampling 1.2 Confirm sampling schedule with manager 1.3 Confirm sampling site location and obtain approval for site access 1.4 Identify samples to be collected and preserved 1.5 Organise equipment required for biological sampling and

Element	Performance criteria
	preserving 1.6 Assess range of likely operating conditions, hazards and sensitive environments for impact on sampling and testing 1.7 Identify work health and safety policies and procedures for sampling tasks, including required personal protective equipment
2. Prepare equipment and resources	2.1 Obtain equipment required for sampling and preserving 2.2 Check equipment for availability and serviceability 2.3 Clean and sanitise equipment where necessary to maintain integrity of samples and biosecurity of area 2.4 Collect data or record sheets necessary for task 2.5 Move equipment, data sheets and personnel to sampling sites without injury or damage and prepare for use
3. Carry out biological sampling and preserving procedures	3.1 Collect samples in accordance with sampling plan 3.2 Apply environmental sustainability and biosecurity practices to collection processes 3.3 Preserve and record samples in accordance with sampling standards and guidelines 3.4 Prepare, package and send samples for external analysis in accordance with sampling schedule and laboratory standards 3.5 Make specific and general observations on relevant ambient and antecedent environmental conditions 3.6 Operate equipment and undertake work in accordance with work health and safety requirements 3.7 Report and deliver collection outcomes, including presentation of samples, according to enterprise guidelines
4. Complete collection of biological sampling activities	4.1 Clean, sanitise, repair and store equipment and clothing 4.2 Repair damaged or malfunctioning equipment 4.3 Record site sampling results and observations on data sheets 4.4 Report changes in field conditions and equipment to supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR302A Collect and preserve biological samples.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR302 Collect and preserve biological samples

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect and preserve biological samples as part of a monitoring program according to enterprise procedures
- establish the sampling purpose and requirements
- plan the collection
- prepare equipment and facilities to take biological samples
- carry out biological sampling as part of a monitoring program and according to enterprise procedures
- preserve and record samples as part of a monitoring program and forward for testing if required according to enterprise procedures
- record sampling data and observations according to enterprise procedures
- report outcomes of collection according to enterprise procedures and monitoring program
- apply work health and safety practices in the context of own work
- apply biosecurity measures in the context of own work
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of biological samples that may be included in the plan, including water, animal, plant samples
- industry biological sampling and preserving guidelines and protocols
- field procedures for biological sampling and preservation
- collecting equipment and methods

- preservation equipment and processes
- fauna and flora recognition relevant to sampling activities
- own role in complying with relevant environmental legislation

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR303 Implement revegetation works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement revegetation works in natural restoration areas.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for revegetation works	1.1 Identify appropriate timing and method of planting required 1.2 Select tools and materials required for the task and check functionality and cleanliness 1.3 Identify, obtain and store plant materials 1.4 Determine and organise labour and machinery requirements

Element	Performance criteria
	1.5 Prepare a works schedule and provide to management or client 1.6 Conduct a safety risk assessment and apply work health and safety procedures
2. Prepare the revegetation site	2.1 Identify site hazards, assess risks and implement risk controls 2.2 Undertake site preparation according to planting plan or supervisor's instructions 2.3 Use soil nutrients and ameliorants, if required by plan specifications 2.4 Mark out revegetation site according to supervisor instructions or plan, applying knowledge of ecosystems and habitat requirements 2.5 Treat all diseased and competing plants, debris and pollutants according to the plan and implement risk controls 2.6 Select and apply treatments according to the risk controls selected 2.7 Install protective structures where indicated by the risk controls implemented
3. Undertake revegetation works	3.1 Carry out revegetation works in accordance with work health and safety policies and procedures and wear appropriate personal protective equipment 3.2 Inspect plant materials before revegetation works and discard defective materials 3.3 Treat plant materials with required nutrients according to documented guidelines 3.4 Plant revegetation stock according to planting program 3.5 Apply appropriate techniques for protecting, securing or anchoring new plants 3.6 Apply appropriate biosecurity and environmentally sustainable practices 3.7 Ensure all of the revegetation program requirements have been implemented 3.8 Identify and report potential threats to revegetation works
4. Maintain revegetated site	4.1 Monitor growth of plants 4.2 Maintain site according to the planting program requirements 4.3 Undertake remedial action and plant protection according to the needs of the species 4.4 Clean, maintain and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR303A Implement revegetation works.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR303 Implement revegetation works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out all revegetation works according to the planting plan or supervisor instructions
- prepare the site for revegetation works
- conduct a site hazard identification and risk control assessment
- recognise and treat plant diseases on a revegetation site
- treat weeds and competing plants
- clean and maintain the revegetated site
- use, clean, maintain and store machinery and equipment according to manufacturer instructions
- apply work health and safety practices in the context of own work
- apply biosecurity measures in the context of own work
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- revegetation techniques
- ecosystems, provenance and habitat requirements
- factors affecting the timing and method of planting
- identification of pests and diseases of trees
- principles and methods relating to the prevention and control of pests and diseases
- safety requirements when handling and using hazardous goods
- nutrient requirements of a range of plant species and cultivars
- physiology of plant growth

- techniques for protecting and securing or anchoring trees and shrubs
- soils, nutrients and ameliorants applicable to revegetation program

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR304 Undertake direct seeding

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plant out regeneration sites using direct seeding methods.

All work is undertaken according to site conditions and rehabilitation plan.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for direct seeding	1.1 Receive, interpret and clarify requirements for seeding 1.2 Select equipment and materials according to rehabilitation plan and site conditions and work health and safety requirements

Element	Performance criteria
	1.3 Identify and manage work health and safety risks and hazards 1.4 Conduct pre-start equipment checks 1.5 Identify site environmental and heritage issues and implement control measures 1.6 Collect seed from local plants near the rehabilitation site for use in rehabilitation activities 1.7 Determine type and proportion of cover crop according to rehabilitation plan and site conditions 1.8 Take steps to avoid introduction of foreign plant species or incompatible species 1.9 Prepare rehabilitation site
2. Conduct direct seeding operations	2.1 Follow work health and safety policies and procedures when conducting seeding operations 2.2 Ensure direct seeding method provides adequate plant coverage according to plant type and rehabilitation plan 2.3 Minimise damage to site using direct seeding equipment and appropriate techniques 2.4 Conduct seeding activities in appropriate season and growing conditions 2.5 Carry out seeding and fertilising according to site conditions, flora type and rehabilitation plan and environmental guidelines 2.6 Apply appropriate seed mix and fertiliser according to soil, site and weather conditions, accessibility and future land use
3. Complete operations	3.1 Clean and store attachments and other equipment to manufacturer, enterprise and biosecurity requirements 3.2 Complete records and documentation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR304A Undertake direct seeding.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR304 Undertake direct seeding

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- use direct seeding methods on revegetation sites, according to revegetation plans
- conduct work according to site procedures, regulations, work health and safety, other relevant legislation, and manufacturer specifications
- prepare the site for seeding with consideration to environmental impacts
- conduct seeding to maximise germination response
- complete seeding operations in line with site stability and environmental requirements
- operate, clean, maintain and store equipment safely and according to manufacturer instructions and organisational requirements
- apply work health and safety practices in the context of own work
- apply biosecurity measures in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental procedures
- seasonality of plants identified for seeding
- equipment processes, technical capability and limitations
- equipment safety requirements
- fertiliser characteristics and application methods
- seeding methods
- soil dynamics

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR305 Collect native seed

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect, treat and store seed for native revegetation projects.

This unit applies to workers who work under broad direction and use discretion and judgement in the selection and use of available resources to collect seed in a bush environment.

Licensing conditions and permissions or approvals apply to the collection of native seed. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to collect seed	1.1 Identify and follow environmental, legislative and organisational requirements to collect seed 1.2 Review work plan for seed collection 1.3 Identify potential locations for seed collection 1.4 Obtain necessary approvals and permissions for access to site and

Element	Performance criteria
	removal of seeds 1.5 Plan seed collecting operations to ensure safe working conditions 1.6 Communicate with others involved in seed collection project 1.7 Select and prepare materials, tools, equipment and personal protective equipment
2. Select and assess seed	2.1 Follow work health and safety policies and procedures when collecting and cleaning seed 2.2 Follow environmental protection and biosecurity measures for the site 2.3 Identify plant species required 2.4 Assess plant species and conditions to ensure seeds are from healthy plants 2.5 Select the appropriate methods of seed collection 2.6 Collect seed from a range of plants and different areas of the plant without causing damage to the parent plant 2.7 Place seed in clean containers and clearly and accurately label according to organisational requirements
3. Clean and store seed	3.1 Separate seed from other materials 3.2 Weigh and store seed in line with species requirements 3.3 Accurately record seed information 3.4 Record and report seed collection information and results

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR305 Collect native seed

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- obtain all necessary permissions and approvals to collect seed in a particular area, including operating in a particular jurisdiction, removal of native seed from a national park and permission from Elders or Custodians to work on Country
- use and maintain relevant material, equipment and resources efficiently and safely
- carry out seed collecting, cleaning and storage procedures efficiently and safely
- identify seed species relevant to plan
- follow organisational policies and procedures relevant to collecting seed
- distinguish between healthy and unhealthy parent plants for seed collection
- accurately record seed collection information and results
- apply work health and safety procedures for seed collection
- apply biosecurity measures in collection and storage of seeds
- apply sustainability practices in the context of own work

Knowledge Evidence

The candidate must explain:

- environmental protection requirements and procedures for minimising environmental impact
- native plant and seed characteristics of revegetation site
- types of diseases and pests likely to infect a range of seed species
- work health and safety requirements for seed collection methods
- procedures for collecting, storing and labelling seed

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR306 Conduct photography for fieldwork

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to take photos for fieldwork for purposes including identifying flora and fauna, vegetation communities and landscapes, photo-point surveys, photography for compliance evidentiary purposes, photography for publications and project monitoring and reporting.

This unit applies to land managers, rangers, weed officers and project officers who are required to use cameras and take photographs for work purposes. These individuals are usually workers who take responsibility for own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to take photographs	1.1 Determine the purpose and end use of photographs 1.2 Prepare a photograph checklist that includes subject, purpose and

Element	Performance criteria
	requirements 1.3 Assess work health and safety risks associated with conducting fieldwork photography and identify controls according to workplace requirements 1.4 Obtain necessary permits and file according to workplace requirements
2. Identify and select appropriate equipment	2.1 Select camera based on suitability for the intended use 2.2 Select and prepare photographic equipment and accessories according to the intended use 2.3 Transport and store photographic equipment and accessories to reduce risk of damage
3. Take photos using correct methods and techniques	3.1 Conduct safety risk assessment and apply safe work practices 3.2 Select position from which to take photos that is safe, unobstructed and easily accessible 3.3 Select camera settings to suit conditions and capture subject 3.4 Select the perspective, framing and sequencing of photographs according to the subject and purpose of photographs and the checklist 3.5 Take photos and check quality on site to make sure they are fit for purpose 3.6 Use specialised photography techniques following proper techniques and methods 3.7 Record field notes identifying site location, date, time, conditions, subject details, further photos required at a later date and other relevant details 3.8 Mark the location of the camera so the perspective and framing can be easily reproduced on future shoots.
4. Download, catalogue and store photographs	4.1 Download photos from camera to computer hard drive or other storage medium according to workplace and legislative requirements 4.2 Electronically file, name and catalogue photos according to workplace policies and procedures and to meet copyright requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR306 Conduct photography for fieldwork

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine the purpose of the photo
- complete permission forms, obtain permits and confirm copyright requirements before taking photos
- prepare a checklist that includes subject, purpose and requirements
- assess work health and safety risks and apply suitable controls
- select the appropriate camera, lenses and equipment for the task
- adjust aperture, shutter speed, depth of field, white balance, ISO, macro settings, as required by camera type, to suit the purpose, subject matter and environmental conditions
- use the following specialised photography techniques:
 - macro (close-up)
 - photo points
 - evidentiary photos
- take photos, check they are fit for purpose and retake if necessary
- record appropriate field notes according to purpose, enterprise requirements and with sufficient information to repeat photo in future
- download, file and name evidentiary photos following chain of custody policies and legal procedures

Knowledge Evidence

The candidate must explain:

- legal requirements of copyright, privacy, permission and environmental protection relating to taking photos for fieldwork
- hazard identification, assessment and control procedures

- purpose of photographic equipment used in fieldwork
- principles of photography including aperture, shutter speed, depth of field, ISO, white balance, exposure compensation and dynamic range, where DSLR cameras are used

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR307 Read and interpret maps

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to read and interpret road and topographical maps for land management and pest management purposes.

This unit applies to those whose job role includes navigating to remote areas using paper maps or geographical information systems (GIS) for land management purposes. It also applies to those who are required to plot sites on maps for recording and monitoring purposes.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan a route using a map	<p>1.1 Select appropriate paper or GIS maps, equipment and navigation aids and check for accuracy, currency and operational effectiveness</p> <p>1.2 Assess and select route to destination, consider information from map, plan or field observations</p>

Element	Performance criteria
	1.3 Examine maps, and identify relevant symbols, information and navigation data 1.4 Identify and locate current position in the field, on map or plan using landmarks and key geographical features 1.5 Identify and locate required destination on map or plan 1.6 Plan a safe route to destination 1.7 Measure and estimate distance to destination using map scale for selected route
2. Navigate using a map	2.1 Navigate and traverse planned route and schedule 2.2 Orient the map or plan to surroundings and planned route 2.3 Use and interpret navigation aids 2.4 Navigate alternative routes to bypass obstacles and improve efficiency of route or course
3. Plot sites and locations using maps and GIS	3.1 Identify and locate position or site on map comparing landmarks and key geographical features to symbols and features on map 3.2 Use GIS data to precisely record locations

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR307 Read and interpret maps

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret symbols, lines and grids on maps to identify locations
- plan the safest and most effective routes to a location using a map, GIS device and other known information
- navigate and traverse a route at least 2km long
- identify current position by comparing nearby landmarks and features to maps
- identify obstructions and plan alternative routes, where necessary
- interpret scales accurately and estimate distances
- mark a location or site on a map, or recording precise GIS details for a site or location

Knowledge Evidence

The candidate must demonstrate knowledge of:

- uses for types of maps, charts and scales that are applicable to own job role
- symbols and representations of topographical and geographical information used on maps
- common scales used on maps and plans
- features and use of a compass and factors that affect compass accuracy
- applications of a GIS device
- advantages and disadvantages of different map and chart types and sources of error
- techniques for estimating distance

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR401 Supervise natural area restoration works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise natural area restoration works on revegetation programs.

All work is undertaken according to enterprise guidelines and contract documents.

This unit applies to individuals who supervise others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify scope of natural area restoration works	1.1 Identify and check nature and scope of works and extent of responsibilities against relevant contract documentation 1.2 Confirm or create site map for works

Element	Performance criteria
	<p>1.3 Determine personnel and other resources required according to the scope of the project and relevant documentation</p> <p>1.4 Develop a work program to ensure that project outcomes are reached within designated time lines</p> <p>1.5 Determine and advise of potential environmental impacts of the proposed restoration</p> <p>1.6 Identify work health and safety hazards, assess risks and implement, monitor and review risk controls</p>
2. Coordinate the supply of materials and equipment	<p>2.1 Calculate and coordinate material quantities and equipment requirements</p> <p>2.2 Order materials, check for specified quantity and quality, then stockpile</p> <p>2.3 Confirm specific delivery requirements with suppliers</p> <p>2.4 Return rejected materials or products for replacement</p>
3. Monitor restoration works	<p>3.1 Coordinate the team to carry out restoration works</p> <p>3.2 Monitor and adjust the work program to meet client changes or directions and to ensure that project outcomes are reached</p> <p>3.3 Give written instructions to contractors</p> <p>3.4 Identify, record and report issues, likely to cause delays or alter the scope of the works, to management and the client</p> <p>3.5 Cost alterations using agreed unit rates and forward variations for approval by the client in writing</p> <p>3.6 Undertake periodic inspection of work to ensure project outcomes are achieved and to make progress payments</p> <p>3.7 Monitor the work site to ensure it remains in a clean, tidy and safe condition throughout and on completion of works</p> <p>3.8 Monitor team to ensure adherence to work health and safety, environmental sustainability and biosecurity policies and procedures</p>
4. Prepare site for completion	<p>4.1 Inspect site before practical completion to ensure all works have been completed to enterprise and client standards</p> <p>4.2 Note any works not complying and rectify according to the contract specification as outstanding items</p> <p>4.3 Produce and communicate a report to management or client</p> <p>4.4 Forward a practical completion certificate to the contractor</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR401A Supervise natural area restoration works.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR401 Supervise natural area restoration works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- supervise natural area restoration works
- identify hazards and ensure safe systems of work are in place
- scope the natural area restoration works required and compare to specifications of work on the contract
- develop a work program and source labour and equipment to undertake the work
- maintain the supply of materials and access to equipment to allow restoration work to proceed
- coordinate team to achieve optimum performance
- monitor the work program and make adjustments to task schedule where required
- monitor work to achieve specified outcomes and to minimise environmental disturbance
- inspect work to ensure specifications are met and environmental impact is minimised
- report project completion to management or client according to enterprise requirements
- monitor the application of appropriate sustainability practices in natural area restoration works
- monitor team to ensure work health and safety policies and procedures are followed
- monitor team to ensure biosecurity measures are applied

Knowledge Evidence

The candidate must demonstrate knowledge of:

- strategies and techniques to avoid negative environmental impacts
- work programming
- natural area restoration techniques to be used in the works

- environmental factors to be considered in restoration works, including:
- the role of native plants and animals in the ecosystem of the area
- vertebrate pests and options for control
- impact of weeds and pests and appropriate control methods
- ability to assess restoration potential of sites
- basic plant and animal ecology
- knowledge of different ecosystems
- team supervision
- strategies for monitoring work quality and progress
- application of work health and safety and environmental legislation, codes of practice and enterprise procedures in natural area restoration works

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR402 Plan the implementation of revegetation works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan the implementation of revegetation works.

This unit applies to supervisors of revegetation programs who supervise others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Carry out preliminary planning activities for revegetation works	1.1 Confirm client preferences and contract requirements including the scope of the work for the revegetation project 1.2 Identify statutory obligations and site responsibilities that may affect the implementation of works 1.3 Conduct an initial site visit to verify the biophysical and other factors of the project area including environmental considerations

Element	Performance criteria
	<p>and historical modifications</p> <p>1.4 Identify work health and safety obligations, assess hazards and develop controls</p> <p>1.5 Verify the availability, quantity and costs of plants and other materials listed in the project schedules</p>
2. Prepare a staged plan of work	<p>2.1 Identify, cost and confirm availability of materials, tools and equipment required for revegetation procedures and ongoing maintenance of the site</p> <p>2.2 Investigate site access and establishment issues</p> <p>2.3 Prepare a program of works which incorporates a plan to minimise environmental impacts of works and work health and safety practices</p> <p>2.4 Develop timelines for site establishment, the establishment period and maintenance of works</p> <p>2.5 Incorporate seasonal factors and impacts in the staging strategy</p> <p>2.6 Include special project works related to habitat resource development and enhancement in the implementation plan, where required</p> <p>2.7 Document the staged implementation plan</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR402A Plan the implementation of revegetation works.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR402 Plan the implementation of revegetation works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan the implementation of revegetation works
- investigate site access and establishment issues
- plan for environmental impacts of site work practices and minimise safety risks to workers and the public
- assess site for opportunities and constraints associated with implementation of revegetation works
- establish the purpose and client preferences for the site to be revegetated
- carry out a site visit and confirm any planning requirements
- develop a plan for the site, detailing the resources required and the program of works
- develop schedules for the establishment and maintenance phases of the project
- document the staged implementation plan
- incorporate seasonal factors and impacts in the staging strategy to allow for planting, supply and care, wet day access, machinery use, fire hazards and establishment
- include work health and safety practices in plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the role of revegetation works in the restoration of the environment
- the environmental issues associated with undertaking revegetation works, how to comply with legislation and ensure that the impact on the environment is minimal, including:
- principles of ecology including specific native plant and animal relationships and habitat requirements
- identification, propagation and establishment techniques of specific native plant species

- chemical, cultural and biological weed and feral animal control techniques
- soil conservation and enhancement techniques and their advantages and disadvantages in reference to specific sites and habitats
- soil erosion control and stormwater management techniques
- maintenance requirements and practices for native plants prior to and after initial establishment
- growth habits and cultural requirements of specific native plants under a range of soil and environmental conditions
- site evaluation techniques including methods of analysing soils, waterways and their condition
- practical understanding of the advantages and disadvantages of options for revegetation procedures
- work health and safety hazards associated with undertaking revegetation works and the controls necessary to remove or minimise risks associated with them
- contract documents including specifications, plans of landscape works, services, supplies and surveyors documents

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR501 Manage natural areas on a rural property

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage natural areas on a rural property.

This unit applies to management of programs on privately owned rural property, which are designed to enhance the sustainable ecological and economic capacity and outcomes of the land.

All work is undertaken in accordance with relevant national, State, Territory and local legislation and regulations.

This unit applies to individuals who manage projects and people and who provide and communicate solutions to a range of predictable and unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine location, size and type of area to be managed	1.1 Map location confirming property ownership and boundaries 1.2 Obtain lists of native animal and plant species specific to area 1.3 Determine features, characteristics and topography of site 1.4 Source and confirm accuracy of vegetation structure and conservation value data 1.5 Obtain details of the presence of and threats from pests 1.6 Assess ecological value of natural areas on property 1.7 Compile documented evidence of physical impacts on area
2 Prepare management plan	2.1 Identify budgetary constraints for management plan 2.2 Design boundary control appropriate to natural area protection guidelines 2.3 Plan restoration and maintenance strategies in line with budget requirements 2.4 Reduce or correct physical impacts using industry endorsed strategies 2.5 Liaise with planning and specialist personnel and local authorities 2.6 Develop habitat enhancement strategies 2.7 Develop strategies to integrate management of natural areas into land use and production systems of property 2.8 Incorporate biosecurity, environmental sustainability and work health and safety procedures into management plan 2.9 Confirm management plan complies with relevant national, State, Territory and local legislation or regulations relating to environmental concerns 2.10 Prepare and present management plan
3. Implement management strategies	3.1 Develop work schedules consistent with production requirements 3.2 Coordinate people, materials and equipment to carry out work according to management strategy 3.3 Schedule works in conjunction with operational personnel, taking seasonal weather conditions into consideration 3.4 Obtain permits or licenses for natural area works 3.5 Consult with neighbours, local authorities and others, as required, during the implementation of the works 3.6 Communicate with staff, clients and contractors regularly during implementation of the works

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR501A Manage natural areas on a rural property.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR501 Manage natural areas on a rural property

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine features and characteristics of natural areas
- source topographical information and conservation data about a site
- assess the ecological value of natural areas on a property
- develop and implement management strategies in accordance with organisational guidelines and industry best practice
- consult with neighbouring landholders, local authorities and interest groups
- coordinate team to carry out work in natural areas according to management strategies and within statutory requirements
- develop and implement restoration and maintenance management strategies that meet relevant national, State, Territory and local legislation or regulations relating to environmental concerns
- ensure management plans incorporate work health and safety and biosecurity legislative requirements and appropriate sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- natural area restoration and management principles
- advantages and limitations of sustainable land management strategies, including environment sustainability as a 'whole-system' approach
- property planning and enterprise budgeting systems and procedures
- environmental issues especially in regard to water catchments, air, noise, ecosystems, habitat and waste minimisation that impact on management plan

- relevant State/Territory legislative requirements related to environmental protection and control standards

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR502 Conduct biological surveys

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and conduct biological surveys and produce a biological survey report, according to client requirements and biological components to be surveyed.

This unit applies to land restoration managers who provide and communicate solutions to a range of predictable and unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Carry out preliminary design activities for the biological survey	1.1 Identify survey scope, objectives and constraints according to client requirements 1.2 Source, collate and evaluate current data relevant to survey

Element	Performance criteria
	<p>requirements</p> <p>1.3 Develop processes for data collection and processing consistent with the survey scope, objectives and constraints</p> <p>1.4 Design survey plan that reflects client requirements and present to client for approval</p> <p>1.5 Incorporate work health and safety and environmental sustainability and biosecurity procedures into plan</p>
2. Determine requirements of the biological survey	<p>2.1 Identify biological survey indicators and evaluate constraints and opportunities for data collection</p> <p>2.2 Identify data collection points that are repeatable and statistically representative</p> <p>2.3 Identify hazards associated with a biological survey, assess risks and develop controls, determine costs, and document in the survey design</p> <p>2.4 Determine tools, equipment and machinery required for the survey and confirm availability with suppliers, contractors and personnel</p> <p>2.5 Schedule survey activities and surveyor access according to the survey design</p> <p>2.6 Document survey procedures and schedules and present to appropriate personnel and client for approval</p>
3. Conduct the biological survey	<p>3.1 Conduct field visit to verify previous data and gather further information on species frequency, distribution and health or habitat values</p> <p>3.2 Conduct the biological survey according to the survey design</p> <p>3.3 Monitor survey activities for accuracy, compliance to the survey design and out-of-specification procedures or events</p> <p>3.4 Undertake staged data collection according to the survey design, scheduling and surveyor access requirements</p> <p>3.5 Record all monitoring and survey data promptly and accurately according to specifications of the survey design</p>
4. Compile a biological survey report	<p>4.1 Analyse data and draw conclusions based on appropriate evidence and reasoned arguments</p> <p>4.2 Prepare a biological survey report that describes survey findings according to the survey scope and objectives, identifies areas requiring remedial action for improvement and details recommendations for action</p> <p>4.3 Present report to the client</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR502A Conduct biological surveys.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR502 Conduct biological surveys

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan, conduct and report on biological surveys according to client requirements, enterprise policy and industry best practice
- identify the scope, objectives and constraints for a biological survey according to client requirements, the biological components to be surveyed and enterprise policy
- assess the availability of current data and determine data collection and processing needs
- identify biological indicators that are repeatable and statistically representative
- develop a survey plan that documents survey methods and indicators
- schedule survey activities and establish access to the site
- conduct a biological survey with data collection staged and recorded according to the survey plan
- produce a biological survey report with detailed analysis and conclusion, including a description and assessment of the specified biological components, in agreed timeframes to client and enterprise standards
- design and conduct biological survey in accordance with work health and safety and environmental legislative requirements
- ensure survey plan and activities complies with Animal Welfare Codes of Practice
- apply work health and safety practices in the context of own work
- apply biosecurity measures in the context of own work
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- biological classification systems

- plant and animal recognition relevant to survey area
- environmental factors that impact on vegetation and animal populations
- requirements for ensuring the welfare of animals described in the relevant Codes of Practice
- ecological principles and terminology
- energy flows and trophic structures of communities
- legal requirements relating to the protection and clearance of vegetation and animal species
- assessment, reporting and client liaison procedures and best practice techniques
- enterprise work team management guidelines
- work health and safety legislative requirements and Codes of Practice
- hazard identification, assessment and control measures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR503 Design a natural area restoration project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design a natural area restoration project.

This unit applies to restoration managers who analyse information and exercise judgement to complete a range of skilled design and development activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a natural area restoration project design brief	1.1 Consult with client to establish the purpose, scope, budget and other requirements of design 1.2 Develop and confirm ecological objectives for the project 1.3 Develop the design brief and agree on extent of project 1.4 Prepare the project budget with the client

Element	Performance criteria
	1.5 Obtain or prepare a site base plan 1.6 Review existing site data and information before visiting the site
2. Undertake a site analysis	2.1 Inspect project site at the first stage of the design work 2.2 Quantify and map on the base plan, elements and features of the site, its biological condition and the presence of threats 2.3 Record soil, topography, aspect, habitat resources, existing vegetation, ecological communities and climatic factors in the base plan and in the site report 2.4 Assess legal requirements and constraints on restoration work 2.5 Assess the potential for natural regeneration and record the limiting factors 2.6 Determine options for passive and active interventions 2.7 Assess and record other relevant information
3. Develop a concept design for the natural area restoration project	3.1 Prepare concept design to illustrate location and layout of the project 3.2 Get agreement from client on options and approaches for development in accord with the proposed ecological aims and goals 3.3 Present the concept design with supporting information and justification or reasons for the proposed actions
4. Produce a final design for the natural area restoration project	4.1 Draft a detailed plan according to the design brief and concept design 4.2 Establish the quality and standard of the works and the responsibilities of the contractor during implementation 4.3 Apply appropriate construction and engineering principles to restoration design 4.4 Organise or prepare any further design documentation according to the design brief and enterprise guidelines

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR503A Design a natural area restoration project.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR503 Design a natural area restoration project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- design a natural area restoration project according to client specifications and workplace and legislative requirements
- conduct an on site analysis to assess potential for regeneration and determine constraints, and use information to inform the design process
- establish the project purpose, scope and extent, and costs and benefits
- prepare a base plan incorporating landforms, soils, fauna and flora and habitat
- determine options for natural area restoration and incorporate into a concept design
- produce a final design with supporting documentation, including costings, planning, notes and specifications to give an interpretation of the plan to establish the quality and standards of the works and the responsibilities of the contractor during the implementation
- use professional graphic formats to present concept design

Knowledge Evidence

The candidate must demonstrate knowledge of:

- design process
- construction principles and practices
- graphical presentation and drafting techniques
- recognition of plant species and a range of ecological communities
- natural regeneration potential and limits
- ecological restoration theory and techniques
- drafting techniques
- developing and managing budgets

- calculations of materials, labour, machinery and equipment
- environmental implications of restoration works
- legislative requirements for natural area restoration works

Assessment Conditions

Assessor must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR504 Manage natural area restoration programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage natural area restoration programs.

This unit applies restoration managers who provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Inspect and assess site for restoration	1.1 Prepare a vegetation assessment report 1.2 Determine site conditions, level of degradation and restoration potential 1.3 Assess threats to existing ecosystem, flora, fauna and property from proposed restoration works 1.4 Assess range of likely operating conditions, hazards and difficult

Element	Performance criteria
	or sensitive environments for potential impact on restoration works
2. Plan natural area restoration program	2.1 Prepare plans and specifications according to program or management aims and objectives 2.2 Select restoration techniques to meet management plans 2.3 Outline staging strategy for works 2.4 Plan protective structures to ensure compliance with work health and safety requirements 2.5 Select or recruit appropriately skilled personnel 2.6 Obtain appropriate permits, licenses and authorisations required for program 2.7 Source equipment and materials for restoration work 2.8 Transport equipment and personnel to restoration sites
3. Monitor natural area restoration works	3.1 Check site is prepared according to specifications 3.2 Check plant materials, machinery and equipment comply with natural area restoration plan 3.3 Monitor natural area restoration works for quality and progression against plan 3.4 Monitor work to ensure remedial action is undertaken as required 3.5 Manage workers to ensure work is carried out in accordance with work health and safety legislation
4. Review natural area restoration programs	4.1 Monitor site to ensure compliance with maintenance program and specifications 4.2 Assess site to determine restoration works are consistent with management plans 4.3 Report changes to restoration techniques for adoption in future works

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR504A Manage natural area restoration programs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR504 Manage natural area restoration programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- manage a natural area restoration program
- carry out a detailed site assessment for restoration
- select appropriate vegetation restoration techniques for the program
- plan a natural area restoration program effectively
- ensure program complies with relevant legislative and program requirements
- calculate staff and resources required
- supervise staff to carry out natural area restoration works according to the program
- review natural area restoration program against issues identified in the management plan for the area
- monitor staff to ensure work health and safety policies and procedures are followed

Knowledge Evidence

The candidate must demonstrate knowledge of:

- plant species and community recognition
- natural regeneration potential and limits
- ecological restoration theory and techniques
- factors affecting the timing and method of plant establishment
- identification of plant and animal threats to treated areas
- principles and methods relating to the prevention and control of pests and diseases
- safety requirements when handling and using hazardous goods
- soils and nutrients, plant selection and culture
- calculations for materials

- legislative requirements
- preparation of plans and specifications

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR505 Plan river restoration works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare a detailed plan for river restoration works, in consultation with the client and relevant consent authorities.

This unit applies to restoration and rehabilitation project managers who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish client need	1.1 Confirm client expectations 1.2 Explain current impacting legislation and policies 1.3 Discuss possible strategies and confirm the best option

Element	Performance criteria
2. Develop the strategy to utilise river restoration works	2.1 Check maps and titles to determine property ownership and boundaries 2.2 Determine profiles of river sections from photographs 2.3 Develop erosion and sediment control measures consistent with industry principles and selection criteria 2.4 Develop fauna habitats following industry recommendations 2.5 Ensure plants used in project comply with industry guidelines 2.6 Establish and document restoration strategies with the client and relevant consent authority
3. Prepare a detailed river restoration works plan	3.1 Check selection criteria for earthwork structures or measures against industry guidelines and legislative requirements 3.2 Check habitat enhancement strategies against industry guidelines 3.3 Prepare plan according to industry best practice and the requirements for submission to the relevant consent authority

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR505A Plan river restoration works.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR505 Plan river restoration works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- check client expectations for restoration strategies for compliance and discuss issues with client
- plan river restoration works according to client, environmental and legislative requirements
- develop erosion and sediment control measures
- follow industry guidelines to establish fauna habitat and vegetation species
- document the strategy for submission to the relevant consent authority
- prepare a detailed works plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant environmental protection, planning and groundwater legislation
- river restoration techniques and processes
- erosion and sediment control techniques
- planning procedure for erosion and sediment control
- erosion control and design principles and factors including:
 - soils and soil formation
 - levels and levelling
 - earthmoving principles
 - total catchment issues
 - managing peak water flows
 - subsurface and surface drainage principles and systems

- restoration principles and techniques
- legal requirements related to permits
- environmental issues
- relevant legislation and regulations relating to soil and water degradation issues

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNAR506 Develop and implement sustainable land use strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and implement sustainable land use strategies.

This unit applies to managers of agricultural and production horticulture enterprises whose job role includes developing land use strategies that lead to improved ecological sustainability of land under production. These individuals take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Area Restoration (NAR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess requirements for improved land use	1.1 Audit the natural resource base and identify threats to sustainability

Element	Performance criteria
	1.2 Review the production and management plans to incorporate sustainable land use principles 1.3 Assess water resources, quality and impacts of run off for risk of erosion 1.4 Assess soil health and fertility against the requirements of the production plan 1.5 Assess vegetation types and coverage and identify required changes 1.6 Plan and prioritise land and water protection measures and structures
2. Carry out structural improvements to address threats to sustainability	2.1 Follow work health and safety policies and procedures in field work 2.2 Inspect sites, note key features and place pegs for improvements 2.3 Determine materials for the construction from the plans 2.4 Obtain and organise materials, personnel and equipment 2.5 Check equipment to be used 2.6 Construct structural works and revegetate the area and secure from livestock
3. Treat areas of land degradation	3.1 Realign fences to land classes and soil conservation works 3.2 Protect contour banks and repair as necessary 3.3 Construct water carrying structures or repair as necessary 3.4 Establish shelter belts for crop and stock protection 3.5 Review and amend soil cultivation and planting practices to prevent erosion and minimise soil run-off 3.6 Plan grazing strategies to maximise ground cover and avoid damage through foot tracks or damage to banks 3.7 Ensure all works and plans comply with environmental protection legislation, regulations and codes of practice

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNAR506A Develop and implement sustainable land use strategies.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNAR506 Develop and implement sustainable land use strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop and implement sustainable land use strategies
- identify the threats to sustainability for an area or region
- manage water resources and riparian zones
- manage vegetation and plant succession for an area
- manage the health and sustainability of soils
- incorporate sustainability principles into land use practices
- apply work health and safety practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the role of biodiversity in farming systems
- sustainable land and water use principles and practices applicable to the region
- sustainable soil management
- soil appraisal and remediation strategies
- environmental controls and codes of practice applicable to the business and to the improvement works
- relevant legislation and regulations relating to soil and water degradation issues, chemical use and structural works
- relevant work health and safety and environmental protection legislation, regulations and codes of practice
- causes of land degradation

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM401 Plan and implement a biosecurity program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and implement a biosecurity program.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication, however, where animals are involved in training and assessment, the AHC Training Package has the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Maintain a biosecure area to prevent disease transmission through	1.1 Maintain a controlled access perimeter to funnel authorised traffic through control points 1.2 Establish and implement procedures for all staff and equipment to

Element	Performance criteria
the use of physical barriers and hygiene practices	<p>cross the controlled access perimeter into the controlled access zone</p> <p>1.3 Restrict entry of workers and equipment into the controlled access zone by transferring inputs, waste and products through access points on the controlled access perimeter</p> <p>1.4 Maintain restricted access perimeters and restricted zones</p> <p>1.5 Prioritise access to restricted zones on the risks and potential impacts of infection being carried into the zone</p>
2. Implement biosecurity procedures to manage visitors	<p>2.1 Define the risk level of visitors by gathering information before the visit and during sign in</p> <p>2.2 Establish procedures for higher risk visitors</p> <p>2.3 Maintain clear signage to direct traffic and discourage unauthorised visitors</p> <p>2.4 Communicate the requirements for entry to visitors before they arrive on site</p> <p>2.5 Keep visitor parking separate to prevent staff vehicle or traffic way contamination</p> <p>2.6 Develop a questionnaire to be completed and signed by visitors to establish their risk levels</p> <p>2.7 Develop and post criteria for banning visitors including those who fail to make pre-arrangements</p> <p>2.8 Maintain visitor log books to allow traceability of any subsequent disease issues</p>
3. Apply sanitation practices and personnel movements to reduce the risk of disease	<p>3.1 Monitor and adjust drainage to ensure water doesn't collect and stand</p> <p>3.2 Implement and monitor hygiene and clothing procedures for entry to the site</p> <p>3.3 Establish and maintain well-defined transition zones for entering restricted zones</p> <p>3.4 Select disinfectants that are appropriate for surfaces and water quality</p> <p>3.5 Develop and implement standard operating procedures for cleaning and sanitising facilities, tools and equipment</p> <p>3.6 Ensure staff movements and animal exposures are from most susceptible animals to least susceptible</p> <p>3.7 Ensure boot dips are used correctly and recharged frequently</p>
4. Implement an integrated strategy for pests to reduce the risk of disease	<p>4.1 Maintain facilities to eliminate potential points of entry for pests</p> <p>4.2 Screen all inputs such as feed, fertiliser and animals to reduce the likelihood of pests being introduced</p> <p>4.3 Monitor pest numbers through the use of counts or other indicators</p>

Element	Performance criteria
	<p>4.4 Use good sanitation and hygiene to break pest cycles and eliminate pest habitat</p> <p>4.5 Control or exclude pests from output storage areas</p> <p>4.6 Reduce pest numbers by use of an integrated approach using a combination of biological, chemical, behavioural and mechanical controls</p> <p>4.7 Rotate pesticides periodically to overcome resistance in pest populations</p> <p>4.8 Document and evaluate pest control measures in response to effectiveness over time</p>
5. Manage outputs to reduce the risk of disease	<p>5.1 Remove and store outputs such as garbage for later removal or disposal</p> <p>5.2 Locate storage areas for outputs in low-traffic areas and managed to prevent cross-contamination and comply with environmental legislation</p> <p>5.3 Implement a mortality management strategy using alternatives such as burial, composting, rendering or incineration</p>
6. Review the implementation of biosecurity measures	<p>6.1 Use record keeping of biosecurity procedures to reduce risk of disease</p> <p>6.2 Monitor effectiveness and progress of control activities and compare with planned objectives</p> <p>6.3 Ensure standards and protocols for the monitoring of sheds and facilities are adhered to as part of work duties</p> <p>6.4 Address issues and concerns with biosecurity and amend procedures where required</p> <p>6.5 Revise control activities as required to address relevant protocols, maintain cost-effectiveness including appropriate resource allocation and contain wider impacts</p> <p>6.6 Review staff training and induction records to ensure they are able to implement all biosecurity requirements appropriate to their position</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM401 Plan and implement a biosecurity program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- manage and maintain quarantine
- implement and monitor quarantine area sanitation
- disinfect facilities
- plan and implement pest control strategies
- establish a biosecure area
- manage visitor access and the storage and movement of inputs and outputs for biosecurity
- develop sanitation procedures to reduce the risk of disease
- apply integrated pest management practices to control pests in a biosecure area
- ensure staff are aware of and follow biosecurity procedures
- review biosecurity status based on records system

Knowledge Evidence

The candidate must demonstrate knowledge of:

- diseases and pests that pose a threat and their likely causes of spread
- principles of risk management applied to biosecurity
- requirements for personal hygiene and quarantine procedures for site entry
- principles of disinfecting a site
- safe use of chemicals and cleaning agents
- integrated pest management and rotation of chemical pest controls
- cleaning and disinfecting procedures
- work health and safety, environmental and biosecurity legislation, codes of practice and enterprise procedures

- record keeping requirements
- reporting incidents or issues
- safety practices related to use of equipment and materials used in cleaning and pest control
- basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice, where animals are affected by biosecurity plans

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM501 Develop a coastal rehabilitation strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop, implement and evaluate a rehabilitation strategy for a natural area in a coastal zone.

This unit applies to persons working in enterprises, organisations or groups who are responsible for the management of natural resources within the coastal zone. They analyse information and exercise judgement to complete a range of advanced skills activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and describe coastal resources and assets	1.1 Identify existing sources of information on the coastal zone resource to be managed, including advice from the relevant land manager, organisation or group 1.2 Conduct site survey to determine physical or biological entities and resources and threatening processes

Element	Performance criteria
	1.3 Identify cultural and heritage sites within the zone and arrange for an archaeological assessment, if required 1.4 Determine resource use, management stakeholders and the requirements and opportunities for consultation
2. Establish condition of coastal area	2.1 Assess current ecological and environmental condition of resources within the coastal area 2.2 Assess the impact on the resources and assets of threatening processes within the area 2.3 Present preliminary findings on the coastal resource and its condition to stakeholders
3. Develop a strategy to rehabilitate the coastal area	3.1 Analyse information gathered to make decisions on management options 3.2 Present findings to management authority and seek direction on drafting management actions 3.3 Implement processes for consultation with management, enterprise staff, consultants and stakeholders in accordance with enterprise policies and procedures 3.4 Establish strategy and prioritise activities for asset rehabilitation and improvement in accordance with environmental sustainability practices 3.5 Design management action plan for implementation of the strategy 3.6 Document management and stakeholder acceptance of the plan according to organisational policies 3.7 Confirm plan complies with legislative and regulatory requirements and industry standards 3.8 Obtain formal consent from relevant land manager or authority
4. Implement and monitor the strategy and action plan	4.1 Seek funds and volunteer assistance to undertake works 4.2 Coordinate works with stakeholders 4.3 Monitor progress of works in accordance with strategy plans 4.4 Monitor volunteers to ensure they follow work health and safety, biosecurity and environmental sustainability policies and procedures 4.5 Review strategies and actions and make recommendations for change
5. Evaluate rehabilitation strategy	5.1 Monitor changes in resource condition and evaluate effectiveness of strategy 5.2 Report findings to management and stakeholders with recommendations for adjustments to strategy

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNRM501A Develop a coastal rehabilitation strategy.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM501 Develop a coastal rehabilitation strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop, implement and evaluate a rehabilitation strategy for a natural area in a coastal zone
- assess the condition of a natural area within a coastal zone and identify threats through review of existing information, site surveys, consultation and expert advice
- determine management options and facilitate the development of a strategy and action plan through analysis of information collected, stakeholder consultation and advice from management authority
- monitor and evaluate the implementation of the strategy
- prepare reports to enterprise and authority standards
- apply work health and safety practices in the context of own work and in managing volunteers and undertaking rehabilitation works
- incorporate sustainability practices into rehabilitation strategies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- coastal zone topographical features
- ecological principles and environmental assessment techniques
- coastal zone information resources including on native flora and fauna identification, habitat requirements, vulnerable and endangered species
- management and rehabilitation techniques and strategies for application within the coastal zone
- environmental degradation processes
- management strategies for cultural and heritage sites

- natural resource management planning and issues
- relevant legislative and regulatory requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM502 Develop a water quality monitoring program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish requirements for monitoring water quality and developing a program to monitor water quality in a given site. It includes carrying out water monitoring activities and evaluating program effectiveness.

This unit applies to those working in the role of coordinator or manager in an organisation, group or enterprise concerned with gathering information for land or water management purposes. The role is likely to include delegation of implementation tasks and may include consultation with specialists such as hydrologists and hydrographers.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine water quality monitoring program requirements	1.1 Consult with client to identify scope, objectives and constraints of project and intended use of the data 1.2 Research and evaluate background information relevant to survey

Element	Performance criteria
	<p>type and site</p> <p>1.3 Determine water quality indicators to be measured, frequency and volume of sampling required to meet scope, objectives and constraints of project</p> <p>1.4 Establish procedures for data collection, processing and reporting that are consistent with the scope, objectives and constraints of the program and legislative requirements</p> <p>1.5 Seek estimates of costs involved and sources of funds for the program</p> <p>1.6 Identify and assess work health and safety hazards associated with conducting the sampling program</p> <p>1.7 Provide a survey strategy that reflects project requirements, scope, objectives and constraints for discussion and approval</p>
2. Undertake a site analysis	<p>2.1 Identify and record physical and biological features of the site</p> <p>2.2 Identify and record resource management factors contributing to water quality</p> <p>2.3 Survey biota, as required, to meet the scope and objectives of the program</p> <p>2.4 Identify and evaluate sampling points for safety, accessibility and opportunities for repeatable data collection</p>
3. Plan monitoring program	<p>3.1 Select suitable sites for repeatable monitoring to obtain representative samples</p> <p>3.2 Source laboratory and field equipment for the monitoring program and determine costs</p> <p>3.3 Confirm suitability and availability of laboratory and field equipment</p> <p>3.4 Confirm surveyor access to site for the duration of the monitoring program</p> <p>3.5 Document work health and safety controls and emergency procedures for the program in line with organisational policies</p> <p>3.6 Document environmental sustainability policies and procedures and biosecurity measures</p> <p>3.7 Document sampling techniques to be used</p> <p>3.8 Document methods of data collection, monitoring and field techniques for field operators</p> <p>3.9 Present survey schedules and procedures to appropriate personnel and the client for approval</p>
4. Monitor water quality	<p>4.1 Carry out water quality monitoring tasks in line with plan</p> <p>4.2 Transport, store and treat samples with regard to temperature, maximum holding periods and other variables</p> <p>4.3 Monitor surveying process for accuracy, compliance with the</p>

Element	Performance criteria
	survey plans and procedures 4.4 Implement contingency plans when problems arise, whilst continuously assessing and evaluating the plan for errors and inconsistencies
5. Evaluate program	5.1 Record and save data according to plan requirements 5.2 Analyse data collected according to industry policies and guidelines and scientific standards 5.3 Draw outcomes, conclusions or trends from the monitoring program using industry standards for interpretation of water quality data and appropriate evidence and reasoned arguments 5.4 Seek advice from client as to satisfaction with monitoring program in terms of the process and outcomes 5.5 Provide report on outcomes to client with recommendations for changes and improvements for any further monitoring activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNRM502A Develop a water quality monitoring program.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM502 Develop a water quality monitoring program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must develop a water quality monitoring program in accordance with legislative and organisational policies. The candidate must also undertake the water quality monitoring.

The candidate must provide evidence that they can:

- establish scope, objectives and constraints and water quality monitoring requirements of the project through consultation with client
- undertake research and a site analysis to select suitable monitoring sites
- develop the monitoring plan in accordance with project brief and to meet client needs
- monitor water quality in accordance with project plan
- evaluate the program using data analysis, consultation with client and assessment against program objectives
- collect, transport and treat samples in accordance with organisational guidelines and policies
- analyse data according to scientific standards and organisational policies and guidelines
- apply work health and safety practices in the context of own work
- incorporate biosecurity into monitoring program
- apply sustainability practices in monitoring program
- draw conclusions based on appropriate evidence and reasoned arguments
- produce written reports to enterprise standards

Knowledge Evidence

The candidate must demonstrate knowledge of:

- water quality principles and factors including:
- hydrological cycle
- aquatic ecology
- water quality indicators
- chemical principles
- catchment and coastal management issues contributing to surface and groundwater quality
- standard techniques to assess ecological health of aquatic sites
- mathematical sampling techniques
- analytical techniques appropriate to water quality monitoring
- data storage and management
- accepted scientific processes and standards for data collection and analysis
- statistical analysis
- hazard identification, assessment and control

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM503 Support the implementation of waterways strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to support implementation of catchment plans relevant to improvement of waterways using a diverse range of strategies.

This unit applies to individuals who have a role in the development and management of waterways and are responsible for implementing waterways improvement plans by working with a range of stakeholders and applying a range of strategies.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Confirm arrangements for waterways planning and management	1.1 Identify the roles and responsibilities of key stakeholders, including landholders 1.2 Review the purpose, scope and impact of relevant legislation

Element	Performance criteria
within a catchment area	1.3 Review waterways planning and management arrangements and current trends 1.4 Review government policies and plans on waterways planning and management
2. Prioritise plans for waterways improvement	2.1 Review catchment plans based on relevant legislation and policies, management targets and priorities 2.2 Collect and assess information on the specific needs of waterways 2.3 Establish priorities, targets and funding requirements through consultation 2.4 Determine funding opportunities for projects 2.5 Assess strategies and programs for relevance to achievement of priorities and targets
3. Facilitate stakeholder participation	3.1 Communicate priorities and targets to stakeholders 3.2 Communicate funding and other opportunities that support strategies for action to stakeholders 3.3 Support the development of plans or submissions that identify aims, outcomes, steps, evaluation and reporting methodology 3.4 Facilitate cooperation and partnerships between stakeholders
4. Advise and support stakeholders	4.1 Document and report findings for use in future planning 4.2 Provide support to ensure that legislative requirements are met 4.3 Notify stakeholders of variations to planned approaches 4.4 Meet stakeholder needs with timely and appropriate support 4.5 Use communication and negotiation skills to resolve conflicts
5. Evaluate the achievement of priorities and targets	5.1 Use appropriate monitoring strategies 5.2 Collect and analyse monitoring information against priorities and targets 5.3 Evaluate progress towards achievement of priorities and targets 5.4 Communicate findings to stakeholders

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNRM503A Support the implementation of waterways strategies.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM503 Support the implementation of waterways strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must demonstrate their ability to support the implementation of waterways improvement plans using a diverse range of strategies.

The candidate must provide evidence that they can:

- apply appropriate communication techniques to collect information on needs, inform funding opportunities, develop plans and submissions, and educate and resolve conflict
- identify and apply a diverse range of strategies to achieve the priorities and related targets from catchment plans
- liaise with, and give feedback to, a range of stakeholders to solve conflicts as they arise
- evaluate the progress towards achievement of priorities and targets
- prioritise projects based on regional targets and funding provisions
- determine funding requirements and identify enterprise funding mechanisms
- support the development of plans including establishing priorities and targets, strategies and programs, communication procedures, monitoring requirements and strategies and reporting processes
- identify aims, risks, outcomes and stages on the project in the project planning
- determine evaluation and reporting methods in the planning
- develop reports for stakeholders and for future planning purposes according to organisational requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental legislation

- obligations of landholders
- contemporary regional catchment strategies
- principles of community capacity building and engagement
- relevant policies across all levels of government and within the specific region, including those under catchment plans
- waterways management and improvement techniques, including:
 - fencing
 - revegetation
 - habitat restoration
 - pest plant control

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM504 Interpret and report on catchment hydrology

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to interpret catchment hydrology to report on water quantity and quality within a catchment.

This unit applies to a person employed in a technical capacity to collect, collate, analyse and report on hydrological data for use in floodplain management, asset protection and water allocation. This person will analyse information and exercise judgement to complete a range of skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Collate and evaluate catchment information	1.1 Determine data collection priorities in consultation with supervisor or team 1.2 Access and collate catchment information 1.3 Determine the requirements for accuracy and currency of

Element	Performance criteria
	information and identify additional data requirements 1.4 Identify land uses within the catchment 1.5 Determine management units within the catchment
2. Analyse hydrological processes of a catchment using available data	2.1 Analyse natural ground and surface water processes 2.2 Identify man-made ground and surface water movement 2.3 Determine and analyse man-made impacts on water quantity 2.4 Determine the need for, and identify appropriate representative sites for collection of additional data 2.5 Apply work health and safety policies and procedures, environmentally sustainable practices and biosecurity measures when analysing hydrological processes
3. Design and implement field surveys and assess findings	3.1 Determine objectives, locations and resource requirements for site assessments in consultation with supervisor or team 3.2 Assess physical entities and processes, including threats, within representative management units 3.3 Collect site data according to enterprise policies, procedures and guidelines
4. Report on catchment hydrology	4.1 Prepare a written overview on catchment hydrological behaviour 4.2 Present a visual overview of catchment hydrological behaviour to stakeholders 4.3 Provide advice and guidance on remediation measures consistent with catchment management objectives

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNRM504A Interpret and report on catchment hydrology.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM504 Interpret and report on catchment hydrology

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- access and collate existing hydrological information
- collect and analyse hydrological data using appropriate sustainable practices
- collect and assess a wide range of hydrological data
- determine the movement of water within a catchment from existing data
- assess processes within catchment to evaluate non-sustainable practices in catchments
- report on catchment hydrological behaviour to organisational requirements
- apply work health and safety practices to the collection and testing of water
- apply an awareness of biosecurity in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of factors used for analysis of water catchment area:

- hydrological cycles
- chemical and physical properties of water
- rock and soil types including weathering processes
- fluvial geomorphology:
 - drainage basin function
 - factors influencing stream flow rates
 - interactions between ground and surface water
 - stream hierarchy and ordering
 - human impacts on surface water quality and quantity
- hydrogeology:

- aquifer types and properties
- aquifer discharge and recharge
- rates of water movement through aquifers
- human impacts on groundwater quality and quantity
- sustainable use of ground and surface water:
 - uses of water in catchments
 - water allocation
 - policies and strategies determining water use

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM505 Provide technical advice on sustainable catchment management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide technical advice on sustainable catchment management to land managers in a catchment area or region.

This unit applies to those in a catchment management role and are responsible for identifying and managing land degradation, as well as providing advice and information on programs and funding for the sustainable management of farms, small properties, recreational land and land used for commercial activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Respond to requests for advice on sustainable catchment	1.1 Respond to requests for advice from land managers 1.2 Seek information on location, land management or production objectives and land management concerns

Element	Performance criteria
management	1.3 Review state and regional legislation, regulations and strategies relevant to the region in relation to potential constraints 1.4 Confirm options and processes for provision of advice with land managers
2. Identify and analyse land management issues	2.1 Conduct a site assessment to collect information on geological characteristics, ecological processes and biodiversity 2.2 Apply work health and safety policies and procedures, environmentally sustainable practices and biosecurity measures when conducting site assessments 2.3 Collect information on land uses and land management techniques 2.4 Interpret site information for land managers and other relevant stakeholders in a supportive and non-threatening manner 2.5 Evaluate the types and levels of land degradation in the site assessment
3. Provide advice on sustainable land and catchment management	3.1 Provide advice that complies with State and regional legislation, regulations and strategies 3.2 Propose options for changing land management practices, taking into account economic factors, technical difficulty, practical feasibility, social and environmental acceptability 3.3 Advise land manager on outcomes of analysis, sustainable land management techniques, whole property planning and remediation measures 3.4 Provide resource materials and information on supportive programs and funding

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNRM505A Provide technical advice on sustainable catchment management.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM505 Provide technical advice on sustainable catchment management

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- provide technical advice on sustainable catchment management to land managers in a catchment area or region in accordance with State and regional legislation, regulations and strategies and stakeholder requirements
- review State and regional legislation, regulations and strategies relevant to the responsibilities of land managers
- analyse the issues, processes and techniques in sustainable land management and assess land management practices in relation to the long-term objectives of a catchment or region
- source and communicate advice on sustainable land management practices to a variety of land managers in a knowledgeable and non-threatening manner
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- geology:
 - rock types
 - weathering
 - soil formation and soil types
- ecological processes:
 - energy flow through ecological systems
 - matter flow through ecological systems
 - nutrient cycling
- land degradation processes and impacts:

- soil compaction
- erosion
- tree decline
- pest plant and animal infestations
- eutrophication
- acidification
- salinity
- fertility decline
- catchment management principles:
- catchment planning priorities and programs
- roles and responsibilities of land users in catchments
- biodiversity:
 - basic plant identification techniques
 - animal identification
 - ecological vegetation communities
 - whole property planning principles:
 - energy flows
 - sustainable water management
 - land capability

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM506 Plan and monitor works projects in catchments and waterways

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan, implement, monitor and review works projects conducted in catchments and waterways. This includes engaging and working with stakeholders and ensuring works meet environmental and project outcomes and priorities.

This unit applies to those engaged in contract project works in catchments and waterways who take personal responsibility and exercise autonomy in undertaking complex work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Inspect and assess catchment and waterways sites for	1.1 Establish the environmental outcomes and priorities of the works program 1.2 Apply work health and safety policies and procedures,

Element	Performance criteria
inclusion in a works program	environmentally sustainable practices and biosecurity measures 1.3 Confirm the physical characteristics and health of catchment and waterways with a site assessment 1.4 Assess the range of operating conditions, hazards and sensitive environments for impact on proposed projects 1.5 Assess the heritage and cultural values of sites 1.6 Consult potential project partners and investors on the scope and purpose of the works program
2. Plan works project	2.1 Consult with stakeholders to determine project priorities 2.2 Obtain permits, licenses and other authorisations 2.3 Determine and source equipment and materials and personnel required for project 2.4 Confirm terms and conditions of project work with project partners and investors 2.5 Prepare plans and specifications for works project 2.6 Complete project documentation and communicate details
3. Monitor works project	3.1 Establish monitoring program that includes selecting representative water quality and macro invertebrate monitoring sites using data collection guidelines, data collection parameters and timelines 3.2 Establish data benchmarks for evaluating the outcomes of project 3.3 Ensure the ongoing requirements of contractors and project workers are met 3.4 Provide appropriate and timely support 3.5 Monitor the condition of the project site to ensure it is left in an agreed condition 3.6 Report outcomes of monitoring to enterprise requirements
4. Review works program	4.1 Evaluate individual projects to ensure compliance with agreed outcomes 4.2 Determine whether projects are meeting the environmental targets 4.3 Recommend changes to the works program to better achieve catchment and waterways priorities 4.4 Use a relational data management system for recording monitoring data and reporting to stakeholders

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNRM506A Plan and monitor works projects in catchments and waterways.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM506 Plan and monitor works projects in catchments and waterways

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply effective consultation techniques to ensure stakeholder contribution to project priorities
- research and determine the environmental conditions of project worksites in relation to the wider catchment
- undertake consultation with stakeholders
- work with and support project partners during project implementation
- develop waterway monitoring program that includes selecting representative water quality and macro invertebrate monitoring sites
- monitor project to ensure it is meeting regulatory requirements
- evaluate the impact of projects on sustainable catchment management
- determine the physical and human resources necessary for project success
- determine suitable monitoring procedures that will provide sufficient information for evaluation and review of the project
- evaluate the environmental benefits of the works program using existing techniques and reporting guidelines
- complete reporting requirements to enterprise standards and to meet the needs of stakeholders, partners and investors

Knowledge Evidence

The candidate must demonstrate knowledge of physical characteristics and indicators of health of waterways and catchments, including:

- wetland and floodplain processes and function:
 - factors that influence stream flow

- stream dynamics
- stream formation
- eutrophication
- impacts of land use on waterways
- indicators of catchment health:
 - pest plant and animal infestations
 - vegetation decline
 - soil erosion
 - stream bank erosion
 - water quality decline
- water quality parameters:
 - physical and chemical properties of water
 - biological indicators of water quality

The candidate must demonstrate knowledge of:

- project planning processes
- permits and licences required for on-ground works

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM507 Manipulate and analyse data within geographic information systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to extract, compare and manipulate data within a Geographic Information System (GIS) in response to customer requests.

This unit applies to those who undertake data analysis within a range of geographic information systems for the purpose of managing natural resources. They are likely to undertake a range of specialised skilled activities, exercise autonomy and take responsibility for complex work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop procedures for manipulation and	1.1 Specify desired data format based on job requirements 1.2 Specify parameters for the manipulation of data sets

Element	Performance criteria
analysis of data	1.3 Explain the procedure and rationale for development in new documented procedures
2. Establish models required to provide outcome	2.1 Evaluate applicability of existing tools, models, theories, applications and solutions 2.2 Specify feasible parameters, equations and assumptions 2.3 Establish models required to provide specified outcome
3. Analyse data	3.1 Specify steps to be undertaken and computer operating systems and applications to be used to analyse and manipulate data 3.2 Consider restricting factors when selecting techniques for analysis 3.3 Isolate and retrieve data from its source 3.4 Interrogate data to ensure reliability 3.5 Prepare data for presentation media

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNRM507A Manipulate and analyse data within geographic information systems.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM507 Manipulate and analyse data within geographic information systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must demonstrate that they can extract, compare and manipulate data in response to customer requests.

The candidate must provide evidence that they can:

- develop and document suitable procedures for data collection, manipulation and analysis
- use or create appropriate models
- use operating systems and computer applications for data analysis and report writing, according to organisational requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- database structures
- scripting and commands
- line instructions and programming
- operating systems used by enterprise for data analysis and storage, including:
 - UNIX
 - DOS
 - Windows
 - NT
- range of tools, models, theories, applications and solutions
- data analysis and manipulation techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM508 Investigate suspected breaches of natural resource management legislation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to investigate suspected breaches of natural resource management (NRM) legislation.

This unit applies to officers who investigate suspected breaches of NRM legislation. It applies to individuals who take responsibility for their own work and who provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

All work is undertaken in accordance with organisational protocol and legal requirements.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Respond to advice of	1.1 Record details relating to change in land use

Element	Performance criteria
change in land use	1.2 Complete pre-site inspection investigations in accordance with Federal or State legislation and local regulations 1.3 Report suspected breach and seek approval to proceed with investigation
2. Carry out site investigation	2.1 Follow work health and safety policies and procedures when carrying out investigations 2.2 Give notification to stakeholders of the consequences of their actions 2.3 Interview witnesses and landholders and record proceedings 2.4 Document records of interviews and proceedings 2.5 Communicate specific issues relating to collection of evidence aligning to technical guidelines 2.6 Record specific site details relevant to the investigation
3. Collect site evidence	3.1 Check accuracy of site details in line with program guidelines 3.2 Collect site evidence 3.3 Ensure completed investigations are sufficient to support judgement
4. Compile final report	4.1 Check detail and accuracy of supporting and validating data 4.2 Establish recommendations based on investigations that conform to legal protocol and organisational guidelines 4.3 Present final report and supporting workplace documentation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCLPW506A Investigate suspected breaches of Natural Resource Management (NRM) legislation.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM508 Investigate suspected breaches of natural resource management legislation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- investigate suspected breaches of NRM legislation in accordance with legal and organisational protocols and guidelines
- carry out preliminary investigations into a reported or suspected breach of land use legislation using organisational processes and procedures and in accordance with legislative and regulatory requirements
- seek approval to proceed with a full investigation
- carry out a site investigation according to organisational guidelines
- interview witnesses and land owners following organisational protocols
- document records of interviews, proceedings and site details according to legal requirements and organisational protocols
- check accuracy of all data and information collected and ensure it is sufficient to make an informed judgement
- make recommendations based on information collected
- complete final report with supporting documentation in line with policy guidelines and legislative and regulatory standards
- apply work health and safety practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- application of Federal and State legislation and regulations to natural resource management issues
- types of breaches of natural resource management legislation
- organisational policies and procedures for investigating and reporting on breaches

- techniques for consulting with stakeholders, legal and agency policies and procedures
- assessment approaches for area of notification
- formats for compiling reports and submitting evidence

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM601 Review land management plans and strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to review and assess the effectiveness of management plans and strategies. It includes establishing criteria and review mechanisms as well as modifying plans and strategies as required, in response to review outcomes.

This unit is carried out at a strategic level, with the capacity to devolve responsibilities and tasks if required.

This unit applies to individuals who take responsibility for their own work and who provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine mechanisms	1.1 Establish reasons for the review of management plans and

Element	Performance criteria
and criteria for reviewing land management plans and strategies	strategies 1.2 Examine internal policy and procedural influences impacting on land management plans and strategies 1.3 Interpret trends to identify changes occurring in land management plans and strategies beyond normal variations 1.4 Establish the need for the review of management plans and strategies by reviewing industry information 1.5 Set realistic timeframes for review process
2. Analyse existing land management plans and strategies	2.1 Assess ecological and environmental trends and threats against the objectives of the plans and strategies 2.2 Identify and assess the effectiveness, relevance and impact of existing management plans relevant to the issue 2.3 Identify and prioritise gaps in management plans and strategies 2.4 Analyse management plans in consideration of the relevant historical, social, cultural, political and economic contexts in which they were developed 2.5 Inform persons contributing to the review of relevant enterprise requirements 2.6 Undertake consultation with stakeholders to gain support for the implementation of the reviewed plans and strategies 2.7 Identify and resolve stakeholder problems or issues with the plan
3. Modify land management plans and strategies	3.1 Modify plans and strategies, ensuring they are consistent with business plan and identified needs 3.2 Evaluate feedback from employees on existing management plans and strategies 3.3 Instruct staff in changes to management strategies and monitoring and recording processes 3.4 Submit proposed changes, according the organisational requirements, for approval 3.5 Include outcomes amendments from the consultative process 3.6 Ensure modified plans and strategies comply with relevant legislation
4. Implement modified land management plans and strategies	4.1 Make modifications to operational processes to obtain additional data or to monitor changes to conservation strategies and plans 4.2 Provide education and training to employees to ensure implementation is safe, effective and environmentally sustainable and that it meets biosecurity requirements 4.3 Provide education and information to stakeholders to promote implementation 4.4 Implement modifications in a timely manner to reflect the need for changes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS602A Review land management plans and strategies.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM601 Review land management plans and strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine mechanisms and criteria for reviewing management plans and strategies
- analyse statistical trends to determine changes occurring in land management plans and strategies beyond normal variations
- analyse existing management plans and strategies
- modify management plans and strategies using clear and concise language in a standardised format
- implement modified management plans and strategies within appropriate timeframes, using approved communication and education strategies
- undertake internal and external consultation appropriate to the review process
- undertake training needs analysis for staff on implementing new management plans and strategies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- mechanisms and criteria for reviewing management plans and strategies
- trends and threats both natural and from human activity, to places of natural significance, including:
 - ecosystems including the interrelationship of geophysical, hydrological, biological and meteorological factors
 - normal and abnormal life cycles of the biodiversity
 - pollution sources and damage potential
- legislation under which enterprise operates

Assessment Conditions

Assessor must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM602 Develop a monitoring, evaluation and reporting program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a monitoring, evaluation and reporting program for an organisation to measure progress against targets and reporting responsibilities.

It includes the development of evaluation strategies to inform implementation of a natural resource management Monitoring, Evaluation, Reporting and Improvement framework (MERI Framework), used to manage human, social, natural, physical and financial assets.

This unit applies to individuals who analyse information and exercise judgement to complete a range of highly skilled activities and demonstrate broad knowledge in an area of work with depth in areas of specialisation.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Define terms of reference, scope and evaluation context	1.1 Identify and clarify the outcomes sought, who will use the information and for what purpose 1.2 Identify the key stakeholders who will be consulted 1.3 Select evaluation and monitoring methods which are suitable to the size and significance of the program, and the terms of reference 1.4 Complete a review of existing evidence and literature relevant to the proposed evaluation 1.5 Develop an evaluation methodology that supports broader management targets, natural resource management standards, targets and outputs
2. Identify the key stages and outcomes of the program	2.1 Define key stages, milestones and timeframe 2.2 Communicate with clients and stakeholders the details of the program and delivery timeline for endorsement 2.3 Identify potential risks, including work health and safety risks, which may impact on the proposed program 2.4 Refine targets and objectives as required
3. Define reporting and record keeping requirements for data management	3.1 Identify data collection, management and reporting requirements to meet the objectives of the program 3.2 Identify existing data sets that may be accessed for the program 3.3 Design data collection protocols and methodology so relevant standards and required formats are met 3.4 Identify how data will be stored to ensure security and appropriate access taking into account required formats 3.5 Identify the information products required taking into account client and stakeholder needs, and use in decision making 3.6 Produce reports to suit program audience types
4. Identify the resources needed to implement the program	4.1 Identify the personnel and skill sets required to implement the monitoring and evaluation program 4.2 Assess the material resources required to undertake the work
5. Design and manage the monitoring, evaluation and reporting program plan	5.1 Document the program plan to enterprise requirements 5.2 Outline reporting requirements for the program 5.3 Incorporate work health and safety, environmental sustainability and biosecurity policies and procedures into the plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS607A Implement a monitoring, evaluation and reporting program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM602 Develop a monitoring, evaluation and reporting program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a monitoring, evaluation and reporting program for an organisation in accordance with the MERI Framework
- scope a project
- define terms of reference and context
- identify key stages and outcomes of the project
- assess and define data management requirements according to project requirements and objectives
- identify the resources needed to undertake the program, including financial, equipment, material and human resources
- develop data collection, management and analysis methodology and procedures
- design and manage a monitoring, evaluation and reporting program
- produce reports and planning documents to organisational standards
- review existing data and information appropriate to the plan, according to organisational requirements
- incorporate work health and safety practices, policies and procedures into the program

Knowledge Evidence

The candidate must demonstrate knowledge of:

- program design considerations, including equality, technical validation and ethics
- quantitative and qualitative methods for monitoring and evaluation
- data management techniques
- sources of existing evidence and literature relevant to the program

- the MERI framework data collection protocols

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNRM603 Implement a monitoring, evaluation and reporting program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a monitoring, evaluation and reporting program for an organisation to measure progress against targets and reporting responsibilities.

It includes implementation of evaluation strategies developed to inform a natural resource management Monitoring, Evaluation, Reporting and Improvement framework (MERI Framework), used to manage human, social, natural, physical and financial assets.

This unit applies to individuals who analyse information and exercise judgement to complete a range of highly skilled activities and demonstrate broad knowledge in an area of work with depth in areas of specialisation.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Natural Resource Management (NRM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Implement a monitoring and evaluation strategy	1.1 Follow the plan to collect relevant baseline data 1.2 Consult with stakeholders and the community 1.3 Brief colleagues, staff and contractors who will be involved in implementing the program, on the monitoring and evaluation methods selected and justification 1.4 Implement chosen monitoring and evaluation methods in accordance with defined strategy 1.5 Ensure standard procedures and recording templates are available for use 1.6 Ensure program timelines are communicated to appropriate stakeholders and monitored
2. Collect and analyse data	2.1 Ensure data and information is collected following relevant standards and format 2.2 Assess if further data or information is needed to answer key evaluation questions and adjust design as required 2.3 Ensure data is appropriately stored and can be accessed as needed 2.4 Coordinate colleagues and contractors involved in the monitoring and evaluation process 2.5 Evaluate the effectiveness, efficiency and appropriateness of investment and project priorities as required by the evaluation design
3. Prepare reports and information products	3.1 Report against milestones and outputs 3.2 Produce appropriate information products to keep stakeholders informed and engaged 3.3 Communicate findings and activities to stakeholder groups according to program schedule 3.4 Negotiate changes to projects and programs with stakeholders, based on MERI findings 3.5 Apply findings to improve the delivery and alignment of projects and policy decisions with organisational targets and mission 3.6 Ensure the style of reporting reflects the audience and how the information is to be used
4. Review the monitoring and evaluation process	4.1 Foster a culture of self-evaluation and learning through encouraging ongoing participation, consultation and communication with stakeholders 4.2 Review and adapt ongoing evaluation strategy and processes and provide feedback on the implementation and the evaluation design

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCBUS606A Develop a monitoring, evaluation and reporting program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNRM603 Implement a monitoring, evaluation and reporting program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- implement a monitoring and evaluation strategy
- apply monitoring and evaluation methods to ensure integrity and validity of data
- collect and manage data related to the monitoring program according to enterprise procedures
- analyse complex information related to the monitoring program according to enterprise requirements
- prepare reports and information products to enterprise standards and to meet audience needs
- review the monitoring and evaluation process to contribute to continuous improvement

Knowledge Evidence

The candidate must demonstrate knowledge of:

- quantitative and qualitative methods for monitoring and evaluation
- data management processes and systems
- policy and program management processes
- adaptive management and review cycles
- MERI framework

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY101 Support nursery work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide support for nursery work.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters. They identify and seek help with simple problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for nursery work	1.1 Identify required materials, tools and equipment according to lists provided and supervisor's instructions 1.2 Conduct checks on all materials, tools and equipment and tell supervisor if there are insufficient or faulty items

Element	Performance criteria
	1.3 Use correct manual handling techniques when loading and unloading materials 1.4 Use suitable personal protective equipment (PPE) selected as directed by supervisor and ensure correct fit 1.5 Tell supervisor if any risks are identified
2. Undertake nursery work as directed	2.1 Follow instructions and directions provided by supervisor and ask for clarification when necessary 2.2 Communicate with other staff and clients in a professional manner 2.3 Handle and dispose of materials 2.4 Tell supervisor of there are problems or difficulties in completing work to required standards or timelines
3. Store and stockpile materials	3.1 Store plant debris and waste material produced during nursery activities as instructed 3.2 Prepare and process plant debris and waste materials in an appropriate and safe manner as instructed 3.3 Stockpile surplus materials for removal as instructed 3.4 Maintain a clean and safe work site while completing nursery work
4. Clean up on completion of nursery work	4.1 Store plants and materials as instructed 4.2 Clean, maintain and store tools and equipment 4.3 Tell supervisor of work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY101A Support nursery work.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY101 Support nursery work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare materials, tools and equipment for nursery work
- undertake nursery work as directed
- store and stockpile materials
- clean up on completion of work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of nursery work
 - basic stock control procedures
 - nursery hygiene and quality control
 - nursery plant maintenance activities
 - propagation techniques
 - safe work practices

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY201 Pot up plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to transplant established plants with developed root systems.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for potting up operations	1.1 Clarify work activity instructions with supervisor 1.2 Identify any work health and safety hazards and tell supervisor 1.3 Select and use tools and equipment for potting up 1.4 Clean and disinfect work area 1.5 Collect materials and check that there is sufficient quantity and

Element	Performance criteria
	quality for potting up operations 1.6 Select and use suitable personal protective equipment (PPE)
2. Prepare growing media	2.1 Measure media components and mix as instructed 2.2 Test growing media to ensure the product complies with media specifications
3. Pot up propagated plants	3.1 Prepare plants for potting 3.2 Pot up selected propagated plants 3.3 Grade plants during the potting process to meet quality specifications and report any abnormalities to supervisor 3.4 Adjust media level in pots to produce a well-furnished plant 3.5 Ensure that placement and depth of plants comply with the planting method and plan 3.6 Add fertilisers and other products as directed
4. Complete potting up operation	4.1 Water plants in to eliminate air pockets and prevent dehydration 4.2 Perform cleaning procedures and follow hygiene practices 4.3 Collect waste and dispose of or recycle to minimise damage to the external environment 4.4 Maintain records of potting up operations in the appropriate format 4.5 Clean and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY201A Pot up plants.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY201 Pot up plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare tools, equipment, media and plants
- measure media components
- disinfect work areas
- operate potting machinery (if required)
- pot up propagated plants
- handle plants with care
- treat common problems of plants
- use and maintain tools

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of potting up plants
 - appropriate use of personal protective equipment
 - basic plant physiology
 - common problems in a controlled environment
 - enterprise plants and their characteristics
 - hygiene and quality control
 - methods of disposing of waste
 - properties of relevant potting media

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY202 Care for nursery plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain and care for containerised nursery plants.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Clarify work activity instructions with supervisor 1.2 Identify any work health and safety hazards and tell supervisor 1.3 Select and use appropriate tools and equipment 1.4 Select and use suitable personal protective equipment (PPE)

Element	Performance criteria
2. Maintain the nursery environment	2.1 Service irrigation system components for basic operational use and repair or replace basic user serviceable parts 2.2 Check irrigation system for functionality 2.3 Monitor environmental controls to ensure specified levels are maintained 2.4 Follow hygiene practices to minimise risk of contamination
3. Maintain nursery plants	3.1 Apply fertiliser and other products as directed 3.2 Remove weeds from pots as directed 3.3 Apply water in the quantity and method specified 3.4 Block and space plants as required 3.5 Prune plants as directed 3.6 Stake and tie plants as directed 3.7 Provide feedback to supervisor on work completed
4. Complete nursery plant maintenance operation	4.1 Record workplace information in the appropriate format 4.2 Collect waste and dispose of or recycle 4.3 Clean and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY202A Tend nursery plants.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY202 Care for nursery plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select and use appropriate tools and equipment
- maintain nursery hygiene
- Service, repair or replace basic operational irrigation system components and user serviceable parts
- maintain nursery plants as instructed
- check irrigation system performance
- monitor environmental controls
- recognise common problems in nursery plants
- repair or replace user serviceable irrigation components
- record workplace information

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of nursery plant care
 - botany and plant physiology as applies to maintaining nursery plants
 - common problems that may occur with containerised plants in a controlled environment and their treatment
 - daily water requirements of nursery plants
 - hygiene and quality control when tending nursery plants
 - principles and operations of irrigation systems used in nurseries, in basic terms

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY203 Undertake propagation activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out a range of propagation tasks.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for plant propagation	1.1 Clarify work activity instructions with supervisor 1.2 Identify any work health and safety hazards and tell supervisor 1.3 Select and use tools and equipment for potting up 1.4 Clean and disinfect work area

Element	Performance criteria
	1.5 Select and use suitable personal protective equipment (PPE) 1.6 Collect propagation material using the appropriate method for the species 1.7 Maintain and store propagation material to ensure maximum viability
2. Propagate plants	2.1 Apply pre-treatment appropriate to the propagation method and species 2.2 Carry out propagation techniques appropriate to the requirements of the species 2.3 Handle propagation material in a way that minimises damage and maximises viability 2.4 Apply water and nutrients to suit the media conditions, plant requirements and propagation techniques used 2.5 Apply labels 2.6 Monitor plant health and take remedial action if required
3. Complete propagation activities	3.1 Collect waste and dispose of or recycle to minimise damage to the external environment 3.2 Maintain records of activities in the appropriate format 3.3 Clean and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY203A Undertake propagation activities.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY203 Undertake propagation activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for plant propagation according to instructions
- collect propagation material as appropriate to species
- apply pre-treatments
- apply water and nutrients
- carry out a variety of propagation techniques
- collect propagation material
- maintain environmental parameters and temperature controls
- minimise damage to and maximise viability of propagated material
- maintain records of activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of propagation
 - botany and plant physiology as it applies to propagation
 - common problems that occur while performing propagation activities
 - enterprise hygiene requirements
 - enterprise requirements for handling and disposal of nursery wastes
 - maintenance requirements of tools and equipment used for propagation
 - plant nutrition
 - propagation methods required for a range of plant species
 - quality specifications/characteristics of a range of parent plants and propagation materials

- record keeping relevant to the work function

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY204 Maintain indoor plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain and care for indoor plants.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to maintain indoor plants	1.1 Clarify work activity instructions with supervisor 1.2 Identify any work health and safety hazards and tell supervisor 1.3 Select and use appropriate tools and equipment 1.4 Select and use suitable personal protective equipment (PPE)

Element	Performance criteria
2. Maintain the growing environment	2.1 Access plants as directed 2.2 Transport tools, equipment and materials safely to comply with access requirements 2.3 Maintain watering system and adjust where necessary 2.4 Take light meter readings to ensure specified parameters are maintained 2.5 Check condition of media 2.6 Clean containers and growing site to ensure the aesthetic and hygiene standards of indoor plants are maintained
3. Maintain indoor plants	3.1 Recognise common problems in indoor plants and rectify and report to the supervisor 3.2 Select and apply treatments to optimise plant health and appearance 3.3 Apply water in the quantity and method specified by the supervisor 3.4 Replace plants when no longer at optimum health and appearance
4. Complete indoor plant maintenance operation	4.1 Remove rubbish, litter and decaying material from plants, pots and surrounds and perform cleaning procedures 4.2 Collect and dispose of or recycle waste to minimise damage to the environment 4.3 Clean and store tools and equipment 4.4 Record workplace information in the appropriate format

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY204A Maintain indoor plants.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY204 Maintain indoor plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- Prepare for indoor plant maintenance activities according to instructions
- inspect plant quality
- measure quantities and calculate application rates
- operate, adjust and maintain watering system
- use a light meter
- monitor and maintain health of indoor plants
- maintain indoor plant environment
- record workplace information

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of indoor plant maintenance
 - acclimatisation techniques for indoor plants
 - botany and physiology of indoor plants
 - common problems that may occur with indoor plants and their treatment
 - growth requirements of indoor plants
 - identification and characteristics of common indoor plants and their culture
 - light and moisture tolerance and intolerance for common indoor plant species
 - methods of disposing of waste to minimise damage to the environment
 - operations and maintenance of a range of irrigation and subirrigation systems used for watering indoor plants and displays

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY301 Maintain nursery plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain and care for nursery plants.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Select and use appropriate materials, tools and equipment 1.2 Identify work health and safety hazards, assess risks and implement suitable controls 1.3 Select, use and maintain suitable safety and personal protective equipment (PPE)

Element	Performance criteria
2. Monitor and maintain the nursery environment	2.1 Monitor environmental parameters against the needs of the plants 2.2 Alter environmental parameters, as required, to meet the needs of nursery plants and market requirements 2.3 Service irrigation system components for basic operational use and repair or replace basic user serviceable parts
3. Determine daily water requirements	3.1 Determine water requirements according to the needs of the plant and environmental parameters 3.2 Apply water to meet the needs of the plant group 3.3 Monitor water requirements of the plant
4. Promote plant growth by intervention	4.1 Test potting media in production areas to ensure quality specifications are met 4.2 Monitor the health of the plant 4.3 Undertake plant interventions as required 4.4 Dispose of waste with full consideration of the environmental implications
5. Complete work	5.1 Clean and store equipment, tools and equipment 5.2 Maintain records on all maintenance activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY301A Maintain nursery plants.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY301 Maintain nursery plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for nursery plant maintenance activities
- calculate daily water needs
- implement a range of plant maintenance activities
- monitor plant health
- operate irrigation systems
- recognise stages of plant growth
- record workplace information
- repair or replace user serviceable irrigation components

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of nursery plant maintenance
 - botany and plant physiology as it applies to plant maintenance
 - characteristics of various types of potting media
 - common problems that occur with nursery plants and their treatment
 - effect of different pruning and intervention methods
 - effects of environmental parameters on plant growth
 - factors affecting the growth of nursery plants
 - methods of calculating daily water needs
 - optimum growing conditions for a range of plants in a nursery
 - principles and operations of a range of irrigation systems used in nurseries

- processes for modifying environmental parameters
- relationship between plant water needs and environmental parameters
- symptoms of unhealthy plants
- treatments required by plants at different stages and environmental parameters

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY302 Receive and dispatch nursery products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to select and collect nursery products for the purpose of dispatch, delivery or pick up by client and the process of receiving and processing of products from suppliers.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select product for an order	1.1 Select and use materials, equipment and personal protective equipment (PPE) 1.2 Select product from stock batches to match order forms or client request

Element	Performance criteria
	1.3 Assist clients onsite with selection or direct to particular product or display area 1.4 Evaluate quality of product visually to ensure that it meets standard order requirements for quality 1.5 Block up stockholding areas for presentation 1.6 Monitor the amount of remaining product and retain information to inform other clients
2. Maintain the stock inventory	2.1 Collate orders in the sales or dispatch area 2.2 Check orders for quality of product and for accuracy of quantity 2.3 Keep electronic or manual records of outgoing sales in the product inventory 2.4 Adjust the inventory of the quantity of nursery stock available for sale
3. Prepare for dispatch or delivery	3.1 Check product for correct labelling and replace incorrect labelling 3.2 Package product for delivery and presentation to the client 3.3 Pack product into containers for ease of handling 3.4 Assist delivery of product by loading and stacking product according to the configuration of the transportation vehicle 3.5 Check product quality at each stage in the delivery process 3.6 Maintain and tidy sales and dispatch areas and packing and packaging materials
4. Receive products	4.1 Check incoming product for quality and correct quantities 4.2 Transfer product to stock holding areas with appropriate manual handling techniques 4.3 Transfer incoming documentation, receipts of delivery and invoices to administration

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY302A Receive and dispatch nursery products.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY302 Receive and dispatch nursery products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- evaluate product quality
- interpret order forms
- maintain product records
- meet client service requirements
- monitor and carry out product dispatch and delivery processes
- select product for order requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of receiving and despatching nursery products
 - best practice guidelines for nursery hygiene
 - common sources of cross contamination from transport vehicles
 - environmental controls necessary for transporting plants
 - quality standards for the packing, packaging and labelling of products
 - quarantine policies and relevant quarantine legislation
 - stock control procedures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY303 Install and maintain plant displays

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install and maintain plant displays. Plant displays can be permanent, semi-permanent and temporary displays of plant life under a range of gardening, exhibition, visual merchandising, marketing and commercial leasing and hiring activities.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess requirements for plantscaping	1.1 Assess access factors impacting plantscaping and record prior to installation 1.2 Assess and record environmental parameters prior to installation

Element	Performance criteria
	1.3 Note light sources in regard to both plant growth and client requirements 1.4 Take light meter readings interior installations and record 1.5 Analyse site conditions and constraints for plant suitability and record findings 1.6 Select plants to meet the requirements of the site
2. Install containerised and direct planted specimens	2.1 Identify and schedule materials, equipment and machinery required for the job 2.2 Identify and schedule personnel required for the job 2.3 Identify work health and safety hazards, assess risks and implement control measures 2.4 Select, use and maintain suitable safety equipment and personal protective equipment (PPE) 2.5 Install plants securely and in a manner that ensures they are presented well, are accessible for routine maintenance and conform to the plan or specifications 2.6 Prune damaged or unnecessary material to enhance the presentation 2.7 Water and fertilise plants as required 2.8 Leave the site in a clean and tidy state
3. Maintain plants	3.1 Identify the symptoms of under and over-watering and rectify 3.2 Identify the symptoms of low and high light intensity and rectify 3.3 Identify the symptoms of low and high fertiliser concentration and measure the pH of the growing medium where required and amend as required 3.4 Identify insects, pests and diseases associated with plants and control as required 3.5 Enhance appearance of plants 3.6 Determine the cost benefit of reviving or replacing plants

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY303A Install and maintain plant displays.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY303 Install and maintain plant displays

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess site conditions, requirements and constraints impacting plantscaping
- select plants that meet the requirements of the display and chosen site
- determine spatial measurements of a plantscape
- identify and schedule materials, equipment and personnel to install a plant display
- install plants securely to ensure accessibility for maintenance and ascetic requirements
- maintain plants to meet their water, light and fertiliser requirements
- detect and control pests and diseases

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of installing and maintaining plantscapes
 - acclimatisation techniques for plants
 - characteristics and attributes of a range of plants used for plantscaping
 - commonly occurring problems with plantscaping
 - light and moisture tolerance/intolerance for common plant species
 - options for remedial action
 - photosynthesis, respiration, nutrient uptake and growth rate for plants
 - plant growth requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY304 Deliver and promote sales of plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to transport and deliver plants to retail outlets and other nurseries and the associated task of maintaining promotional displays.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to provide marketing support	1.1 Identify product list, clients, delivery schedule and transport vehicle 1.2 Select tools, equipment and machinery suitable for delivery requirements

Element	Performance criteria
	1.3 Carry out pre-operational and safety checks on tools, equipment and machinery 1.4 Select and prepare plants identified in orders, sample specifications and delivery schedule and load 1.5 Identify work health and safety hazards, assess risks and implement control measures 1.6 Select, use and maintain suitable personal protective equipment (PPE)
2. Deliver plants	2.1 Maintain stock 2.2 Update and maintain current stock lists 2.3 Maintain regular delivery service 2.4 Supply clients with information about stock availability on request 2.5 Complete delivery documentation
3. Maintain off-site displays	3.1 Check off-site product displays regularly 3.2 Maintain displays 3.3 Provide marketing support with due consideration of environmental implications
4. Promote sales	4.1 Inform retailers of available promotional literature with particular stock lines 4.2 Dispatch regular sales memos 4.3 Prepare advanced lists for seasonal promotions 4.4 Complete sales, promotional and marketing documentation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY304A Deliver and promote sales of plants.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY304 Deliver and promote sales of plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- calculate orders, sales figures, ratios, proportions and application rates
- communicate with clients, work team members and supervisors
- coordinate own activities to deliver and maintain plant orders
- estimate treatment and product requirements, material sizes and quantities
- interpret and apply delivery schedules and marketing plans
- maintain mobile and remote displays and samples
- use reporting and work procedure documents

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of delivering and promoting plants
 - botanical, common and trade names, growth habits, and presentation requirements for display of plants
 - industry labelling standards and methods
 - practical understanding of the range of plants available from the enterprise
 - standards and methods for the preparation and dispatch of promotional literature and lists for seasonal promotions
 - standards and methods of packaging, and delivery of plant orders, samples and displays

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY305 Prepare specialised plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare specialised, unusual or rare plants in a production nursery or by other organisations, groups and individuals with a wide range of species and cultivars as the specialised plants or individual cultivars under production.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to treat specialised plants	1.1 Analyse customer requirements and clarify by market research or with a supervisor 1.2 Select specialist plants requiring treatment

Element	Performance criteria
	1.3 Select treatments appropriate to the specialised plant as outlined by the production and marketing plan of the organisation, or by the individual entrepreneur 1.4 Determine the timing of the treatments according to the seasonality of the plant species and market considerations 1.5 Identify work health and safety hazards, assess risks and implement control measures
2. Implement treatments	2.1 Select, prepare and use materials, tools and equipment required for implementing treatments 2.2 Select, use and maintain appropriate personal protective equipment (PPE) 2.3 Use treatments that meet the aesthetic requirements of the plan
3. Maintain aesthetic appearance of specialised plants	3.1 Monitor the health and aesthetic appearance of the plant to ensure quality standards are met 3.2 Apply water according to plant requirements 3.3 Modify environmental parameters to ensure optimum growth of plant 3.4 Apply remedial or preventative measures to the plants to ensure they maintain their aesthetic appearance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY305A Prepare specialised plants.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY305 Prepare specialised plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- estimate treatment and plant requirements, sizes and quantities and calculating ratios, proportions and application rates
- organise and co-ordinate materials and equipment
- implement plant treatments
- meet quality standards for plant health and aesthetic appearance

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of specialised plant preparation
 - aftercare requirements of treated plants
 - characteristics of a range of potted plants commonly treated for special aesthetic purposes
 - different treatments which are applied to specialised plants to achieve desired aesthetic appearance
 - nursery industry best practice
 - optimum timing of treatments

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY306 Implement a propagation plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a propagation plan for a range of plants using a range of different propagation methods.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for propagation activities	1.1 Interpret workplace instructions and organise tasks to achieve daily work routine within time constraints 1.2 Select and prepare appropriate tools, equipment and machinery 1.3 Identify work health and safety hazards, assess risks, implement control measures and report to the supervisor

Element	Performance criteria
	1.4 Select, use and maintain appropriate personal protective equipment (PPE) 1.5 Prepare growing environment to suit species and propagation method 1.6 Implement hygiene practices
2. Select propagation material	2.1 Identify parent plant and select according to health, vigour and desired characteristics 2.2 Select and collect propagation material according to the propagation method and species 2.3 Select appropriate conditioning and storage requirements to ensure maximum viability of propagating material
3. Prepare propagating media	3.1 Select media components for propagation mix 3.2 Test propagation media to ensure the product complies with media specifications 3.3 Determine storage requirements for the unused propagation media
4. Propagate plants	4.1 Prepare propagation material safely ensuring risks associated with airborne hazards are reduced 4.2 Perform propagation techniques appropriate for the plant species 4.3 Handle plants to minimise damage 4.4 Provide aftercare to suit the media conditions, plant requirements and propagation techniques employed
5. Complete propagation operations	5.1 Clean work site using appropriate hygiene requirements 5.2 Collect waste and dispose of or recycle to minimise damage to the environment 5.3 Complete and maintain records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY306A Implement a propagation plan.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY306 Implement a propagation plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare the growing environment to suit species and propagation method
- recognise and rectify problems and anomalies with parent plants, propagation material, propagation media, equipment and materials
- select appropriate propagation material
- handle potting mixes and propagation materials in a safe manner
- apply propagation techniques as appropriate to plants being propagated
- Provide aftercare to suit media conditions, plant requirements and propagation techniques

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices for implementing a propagation plan
 - aftercare requirements for a range of propagated plants
 - problems that may occur performing propagation activities and preventative action
 - enterprise hygiene standards required for propagation activities
 - preferred types of propagation media for different species
 - propagation techniques required for a range of plants
 - quality specifications for parent plants and propagation materials
 - testing methods applied to propagation media

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY307 Operate fertigation equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate fertigation equipment to deliver fertilisers via an irrigation system.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials and equipment for operation	1.1 Interpret workplace instructions and organise tasks to achieve daily work routine within time constraints 1.2 Select and prepare appropriate tools, equipment and machinery 1.3 Identify work health and safety hazards, assess risks, implement

Element	Performance criteria
	control measures and report to the supervisor 1.4 Select, use and maintain appropriate personal protective equipment (PPE) 1.5 Calibrate and connect injection or fertigation equipment 1.6 Calculate fertiliser concentration and mix the solution thoroughly 1.7 Set equipment to meet fertigation requirements
2. Operate the fertigation process	2.1 Implement start-up sequence 2.2 Operate and monitor fertigation process to ensure delivery is maintained 2.3 Monitor fertigation equipment to ensure no adverse environmental impact is caused by faulty operation 2.4 Implement corrections to the process and equipment adjustments as necessary
3. Shut down fertigation equipment	3.1 Flush injection equipment prior to shut down 3.2 Clean and store equipment 3.3 Manage waste generated by both the fertigation process and cleaning procedures 3.4 Report and record fertigation activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY307A Operate fertigation equipment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY307 Operate fertigation equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select and prepare fertigation materials
- connect and calibrate fertigation equipment
- monitor and adjust the delivery of fertilisers
- shut down, clean equipment and dispose of waste

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of fertigation operation
 - fertigation injection equipment
 - chemical handling procedures for fertiliser, chlorine, acid and cleaning agents
 - cleaning procedures for fertigation equipment
 - Material Data Sheets (MDSs)
 - environmental impacts of delivering fertilisers via the irrigation system

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY401 Plan a growing-on program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan a growing-on program and monitor the implementation of the program.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify issues affecting the growing-on program	1.1 Determine production requirements in consultation with management 1.2 Identify factors that could limit the production of nursery plants

Element	Performance criteria
	1.3 Identify work health and safety hazards, assess risks and implement control measures 1.4 Consider the environmental implications of a growing-on program 1.5 Incorporate sustainable practices into the growing-on plan
2. Develop the growing-on plan	2.1 Identify activities involved in the growing-on program 2.2 Identify labour, materials, tools and equipment needs 2.3 Select environmental parameters and alter to meet plant needs and production plans 2.4 Determine growing media requirements, taking into account the needs of the plant and production plans 2.5 Determine planting dimensions and layout after consulting production plans 2.6 Identify treatments required for the growing-on program 2.7 Identify hygiene requirements for the growing-on program
3. Document the growing-on plan	3.1 Document the growing-on plan, including all information identified in the development stage 3.2 Document a budget supporting the plan and request approval by management 3.3 Organise a schedule of activities 3.4 Communicate the growing-on plan and schedule of activities to staff
4. Oversee and monitor the growing-on program	4.1 Monitor the health of the plants to ensure they are at optimum growth 4.2 Modify treatments as required to maintain optimum growth 4.3 Confirm plants are ready for dispatch meet customer specifications

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY401A Plan a growing-on program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY401 Plan a growing-on program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and assess factors that could impact the growing-on program
- Identify labour, materials and activities involved in the growing-on program
- conduct research about production requirements, growth conditions and marketing implications of a growing-on program
- negotiate, budget and document plans
- communicate plans and schedules to staff
- oversee and monitor the growing-on program

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of planning a growing on program
 - application techniques for chemical and non-chemical intervention or treatments
 - chemical, cultural and biological pest, weed and disease control techniques
 - common problems of growing-on and preventative actions that may apply
 - enterprise hygiene standards required for growing-on activities
 - enterprise quality standards of nursery plant production
 - optimal growing requirements of nursery plants
 - preferred types of propagation media for different species
 - processes and techniques for preparing, costing and documenting plans for and scheduling growing-on activities
 - testing methods applied to propagation media

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCNSY402 Plan a propagation program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan a propagation program and monitor the implementation of the program.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Nursery (NSY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Carry out preliminary planning activities for a plant propagation	1.1 Determine production requirements 1.2 Evaluate space requirements for the program 1.3 Determine propagation techniques, taking into account the species

Element	Performance criteria
program	and sound horticultural practice 1.4 Determine environmental parameters that impact on propagation 1.5 Negotiate a budget for the propagation program 1.6 Identify work health and safety hazards, assess risks and implement control measures
2. Develop the propagation plan	2.1 Identify labour, materials, tools and equipment needs 2.2 Determine propagation media requirements, taking into consideration the propagation method and needs of the plant 2.3 Determine strategies to modify environmental conditions, taking into account the type of plant and propagation method used 2.4 Determine selection criteria for the propagation material 2.5 Determine hygiene requirements for propagation activities
3. Monitor success of propagation activities	3.1 Identify and record variances from plan and scheduled activities 3.2 Assess propagated plants for health, quality and viability

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCNSY402A Plan a propagation program.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCNSY402 Plan a propagation program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- negotiate, budget and document propagation plans
- research information about production requirements, growth conditions and marketing implications
- develop a propagation plan that takes into account labour, materials and propagation media requirements and environmental conditions
- determine hygiene requirements for propagation activities
- monitor propagation activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practices of propagation program planning
 - aftercare requirements for a range of propagated plant varieties and cultivars
 - application techniques for chemical and non-chemical intervention or treatments
 - problems performing propagation activities and preventative action
 - hygiene standards required for propagation activities
 - identification, propagation and establishment techniques for a range of plants
 - enterprise quality specifications for parent plants and propagation materials
 - Plant Breeders Rights (PBR) and related legislation
 - preferred types of propagation media for different species
 - processes for preparing plans for and scheduling propagation activities
 - testing methods applied to propagation media

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG101 Support organic production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to support livestock and plant based organic production.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under close supervision. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for organic production	1.1 Identify required materials, tools and equipment according to supervisor instructions

Element	Performance criteria
work	1.2 Conduct checks for serviceability on all materials, tools and equipment and report insufficient or faulty items 1.3 Demonstrate correct manual handling techniques when loading and unloading materials and minimise damage to self, load and vehicle 1.4 Select, check and fit suitable personal protective clothing and equipment before work 1.5 Identify and report work health and safety hazards
2. Undertake organic production work as directed	2.1 Follow instructions and directions and seek clarification when necessary 2.2 Undertake work in an environmentally appropriate manner and according to workplace information and principles of organic agriculture 2.3 Follow site quarantine, biosecurity protocols and farm and personal hygiene requirements as required by enterprise guidelines 2.4 Meet enterprise's food safety requirements where appropriate 2.5 Interact with other staff and customers in a positive and professional manner 2.6 Follow enterprise policies and procedures for workplace practices and handling and disposal of materials 2.7 Report problems or difficulties in completing work to required standards or timelines 2.8 Maintain a clean and safe work site while working
3. Handle materials and equipment	3.1 Store waste material produced during work in a designated area according to supervisor instructions 3.2 Handle and transport materials, tools and equipment according to supervisor instructions and enterprise guidelines
4. Clean up on completion of work	4.1 Return materials to store or dispose of 4.2 Clean, maintain and store tools and equipment 4.3 Report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG101A Support organic production.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG101 Support organic production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply principles of organic agriculture to daily work routines
- follow supervisor instructions
- follow work health and safety procedures and where appropriate, food safety procedures
- report any variations from required standards or procedures to supervisor
- apply enterprise quarantine and biosecurity protocols

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles of organic production
- organic procedures and recording requirements
- safe work practices relevant to the tasks being undertaken, including safe use of tools and equipment
- food safety requirements for enterprise's activities where appropriate
- work health and safety, biosecurity and environmental protection legislation and enterprise procedures

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG401 Manage biodynamic production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage a farming system according to the principles of, and using the practices of, biodynamic agriculture.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to farmers who manage according to the principles of biodynamic agriculture. Work is likely to be done independently and according to the requirements of the National Standard for Organic and Biodynamic Produce.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare a plan for a biodynamic farming enterprise	1.1 Work in an environmentally appropriate manner and according to work health and safety requirements and enterprise guidelines 1.2 Identify requirements for biodynamic certification 1.3 Incorporate personal, ecological and financial goals for a biodynamic enterprise into an enterprise plan 1.4 Develop marketing plan for biodynamic produce which maintains product quality and integrity 1.5 Trial research findings for biodynamic agriculture and incorporate into plans 1.6 Develop and implement biodynamic production plan based on biodynamic principles and farm strategies
2. Make and apply biodynamic field spray preparations	2.1 Make and store horn manure (500), horn silica (501) and horn clay preparations 2.2 Stir preparations by creating vortex and chaos 2.3 Select equipment for application of biodynamic preparations 2.4 Calibrate and adjust equipment for suitable application rate 2.5 Apply preparations according to biodynamic principles
3. Use biodynamic compost preparations, composts and liquid brews	3.1 Use and store biodynamic compost preparations according to biodynamic principles 3.2 Identify materials and mineral inputs for compost from farm production plan and soil analysis 3.3 Build compost heap 3.4 Apply biodynamic preparations to compost according to biodynamic principles 3.5 Monitor aeration, moisture and temperature of compost heap 3.6 Apply compost to enhance natural cycles
4. Apply biodynamic principles and techniques to enhance soil and plant health	4.1 Plan planting, harvest and pruning times according to moon rhythms and planetary patterns 4.2 Optimise soil and plant health using biodynamic preparations, cover crops, crop rotation, mulching and composting and through application of farm-based fertility products 4.3 Identify weeds and insect pests in enterprise 4.4 Evaluate options for managing weeds and insects that consider natural predators, life cycles, cultural practices, soil health and the plant community

Element	Performance criteria
	4.5 Develop and implement plan for managing pests and weeds
5. Manage animals within a biodynamic production system	5.1 Optimise soil and plant health to provide a nutrient-dense and balanced diet 5.2 Develop and incorporate grazing and feeding strategies into the biodynamic system 5.3 Incorporate homeopathic remedies and allowable treatments into animal health strategies 5.4 Implement enterprise animal welfare policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG401A Manage biodynamic production.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG401 Manage biodynamic production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply biodynamic principles
- develop and implement biodynamic production plan
- make and apply biodynamic preparations and compost
- enhance soil and plant health
- integrate and manage animals in a biodynamic enterprise
- apply enterprise work health and safety policies and guidelines
- implement enterprise animal welfare policies
- implement enterprise environmental sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- animal health
- biodynamic preparations and their role in soil food web and atmosphere
- biodiversity, shelter belts, birds and native bush on biodynamic farm
- calcium-clay-silica polarities
- crop and animal rotation systems
- cultivation methods
- etheric and astral forces and how they relate to biodynamics
- experiments and testing methods such as chromatography and sensitive crystallisation
- green manuring
- management of insects and birds

- paradigms of various farming systems: biodynamics, organics and permaculture, and holistic management
- peppering for animals and insects
- planting calendar
- purpose of various herbs and organs used for making biodynamic preparations
- relationship between soil, plant, animal and human health
- research in biodynamics principles and practices
- rhythms and cycles of planets and moon
- role of the biodynamic preparations 500-508
- role of bacteria and fungi
- role of humus
- soil: food web information, how it is made, its structure and feeding cycle
- water retention
- weed management
- principles, practices and inputs allowable under the National Standard for Organic and Biodynamic Produce

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG402 Manage organic livestock production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to integrate livestock production into an organic production system.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to farmers who work according to the principles of organic and ecological agriculture.

Work is likely to be done independently and according to the requirements of the National Standard for Organic and Biodynamic Produce and agro-ecological principles. This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Manage animal health and welfare	<p>1.1 Consider natural behaviours of animals and requirements of animal welfare codes of practice in planning for organic livestock production</p> <p>1.2 Select and use varieties/genetics for the enterprise that match environmental conditions and optimise animal health</p> <p>1.3 Monitor livestock constantly for health and welfare and keep records</p> <p>1.4 Develop animal health preventative strategies, communicate to others working on farm and implement</p> <p>1.5 Identify and use animal health inputs suitable for organic systems where required</p> <p>1.6 Follow restrictions and prohibited/restricted inputs for certified organic systems and quarantine if applicable</p> <p>1.7 Conduct animal husbandry and transport in compliance with animal welfare principles and organic certification requirements</p> <p>1.8 Maintain livestock records required for organic certification</p>
2. Develop and implement supplementary feed requirements	<p>2.1 Identify feed gaps and requirements for supplementary feed taking into account seasonal conditions and drought</p> <p>2.2 Incorporate on-farm supplementary feed strategies including fodder crops, agroforestry or standing hay paddocks into the annual program for animal feed and on-farm sustainability</p> <p>2.3 Implement good storage practises for feed inputs to ensure quality is maintained</p> <p>2.4 Purchase and use nutritional inputs in the feed program that meet relevant Organic Standards and/or agro-ecological principles where applicable</p>
3. Develop and implement a sustainable grazing strategy	<p>3.1 Determine feed requirements, sustainable carrying capacity and a sustainable stocking rate for the enterprise that takes into account seasonal variability and livestock needs</p> <p>3.2 Determine indicators and benchmarks for sustainable pasture, land and soil use for the property</p> <p>3.3 Identify grazing infrastructure required for a planned grazing strategy and incorporate into a property improvement program</p> <p>3.4 Develop and implement a planned grazing system that ensures optimal livestock health and productivity at all times</p> <p>3.5 Develop and implement a planned grazing system that matches</p>

Element	Performance criteria
	<p>stocking rate to carrying capacity and ensure sustainable pasture, land and soil condition at all times</p> <p>3.6 Optimise soil and plant health to provide a nutrient-dense and balanced diet for livestock</p> <p>3.7 Monitor the grazing system to ensure productivity and sustainability on an on-going basis</p> <p>3.8 Implement strategies for controlling weeds in pastures based on Organic Standards and/or agro-ecological principles where applicable</p> <p>3.9 Keep grazing and feed records for enterprise management and to ensure compliance to Organic Standards where applicable</p>
4. Manage farm fertility for the livestock enterprise	<p>4.1 Estimate level of nutrients exported from farm</p> <p>4.2 Implement a fertility monitoring program such as soil-testing, plant testing or observation of pasture species to monitor pasture and soil fertility</p> <p>4.3 Maintain soil nutrient levels and balance through recycling, optimising nutrient availability in soil and/or sourcing fertility inputs that meet Organic Standards and/or agro-ecological principles where applicable</p> <p>4.4 Eliminate the risk of weed and chemical contamination to the farm by following Organic Standards and/or agro-ecological principles</p> <p>4.5 Keep fertility input records for enterprise management and to ensure compliance to Organic Standards where applicable</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG402A Manage organic livestock production

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG402 Manage organic livestock production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- monitor and maintain animals in an organic production system
- provide a suitable diet and living environment for animals based on the National Organic Standards for Organic Livestock Production and/or agro-ecological principles
- integrate animals into an organic production system
- manage animal health and welfare using Organic Standards and/or agro-ecological principles
- manage grazing of animals and allowable inputs to enhance soil health and fertility
- apply enterprise work health and safety policies and guidelines
- implement enterprise animal welfare policies
- implement enterprise environmental sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant organic certification requirements
- organic agriculture and agro-ecological principles
- animal health, pests, parasites and diseases
- relevant animal welfare code of practice
- grazing management, including pasture identification and assessment, feed budgeting and planned grazing strategies
- carrying capacity and sustainable pasture utilisation
- pasture, land and soil condition and indicators
- management options for animal health based on an understanding of pest life cycles, genetic selection and acquired immunity

- permitted, restricted and prohibited inputs and activities as described in the National Organic Standards for Organic Livestock Production relationship between soil, plant and animal health
- work health and safety and animal welfare legislation and codes of practice.
- record keeping
- principles, practices and inputs allowable under the National Standard for Organic and Biodynamic Produce

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG403 Manage organic soil improvement

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage organic soil improvement.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to managers on farms that are managed according to the principles of organic agriculture. Work is likely to be done independently and according to the requirements of the National Standard for Organic and Biodynamic Produce.

All work is done in an environmentally appropriate manner and according to workplace information, principles of organic agriculture and/or agro-ecology, work health and safety requirements and enterprise guidelines.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor indicators of soil fertility	1.1 Undertake work in an environmentally appropriate manner and according to the principles of organic agriculture, work health and safety requirements and enterprise guidelines 1.2 Sample and test soil at reference sites according to organic industry standards to develop baseline data to monitor soil health and fertility 1.3 Assess and record soil pH, mineral balances, and organic matter levels 1.4 Assess and record soil texture, structure, salinity and sodicity 1.5 Assess and record soil biological activity 1.6 Assess soil condition for drainage, compaction, aeration and water infiltration in relation to requirements for desired plant growth for selected species 1.7 Analyse results to identify trends in soil health and fertility and areas for improvement
2. Assess soil-related factors for selected plants	2.1 Identify nutritional requirements of selected plant species 2.2 Select soil analyses to be conducted using a suitable lab facility 2.3 Conduct plant tissue sample collection according to requirements of testing facility if applicable 2.4 Combine results of soil or tissue testing with observations of plant vigour and productivity to determine management and input requirements of the farming system
3. Select, design and implement allowable systems, techniques and inputs to optimise soil fertility	3.1 Identify range of allowable inputs according to requirements of the National Standard for Organic and Biodynamic Produce 3.2 Identify and implement cultural practices to enhance soil fertility, function and health 3.3 Calculate appropriate inputs based on soil/plant analyses, crop removal and plant/animal observations 3.4 Select and manage cover crop and pasture systems where applicable 3.5 Develop, apply and monitor mulching and composting systems where required 3.6 Design and implement crop rotations and grazing management systems to optimise soil fertility where appropriate

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG403A Manage organic soil improvement.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG403 Manage organic soil improvement

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- implement principles of organic agriculture and agroecology
- implement knowledge of interrelationships between soil fertility, animals, plants, pests and diseases
- devise and implement a soil improvement plan to correct imbalances and maintain soil fertility
- sample soils and analyse soil test results for a range of indicators of soil fertility
- work with natural processes and allowable inputs to improve and maintain soil fertility
- apply enterprise work health and safety policies and guidelines
- implement enterprise environmental sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- availability, use and definition of organic fertilisers
- structural properties of soils
- factors contributing to soil acidity, sodicity and salinity
- factors promoting soil and plant water-holding capacity
- importance of soil biological activity
- major nutrient elements and their role in plant growth
- methods and inputs that can be used to correct imbalances and maintain soil fertility
- principles of organic agriculture
- processes and practices that impact on soil structure, biological activity, water-holding capacity and weed patterns

- processes of aggregate and colloid formation
- range of soil analyses available and principles of each
- relationship between soil structure, water holding capacity and nutrient availability
- role of organic matter, humus and micro-organisms
- role of livestock in enhancing soil fertility
- role of macro and micro-elements in soil and plants
- role of weeds
- significance of levels and balance of soil fertility indicators
- soil food chains and food webs
- soil textural types and determinants
- when and how to take soil samples to test for indicators of soil fertility
- principles, practices and inputs allowable under the National Standard for Organic and Biodynamic Produce

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG404 Arrange selling through community based marketing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to arrange selling through community based marketing.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within know parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and evaluate selling options	1.1 Identify the various types of community based selling schemes 1.2 Identify characteristics of the farm business produce 1.3 Identify and document the potential customer base 1.4 Evaluate and document selling options

Element	Performance criteria
2. Comply with the requirements of the selected community marketing scheme	2.1 Identify and comply with market requirements 2.2 Comply with legislative requirements in each step of the supply chain 2.3 Keep records to verify compliance with the community marketing scheme, food safety and organic certification where applicable
3. Develop and maintain a relationship with customers	3.1 Investigate characteristics of the community customers 3.2 Identify potential links between the community and the farm system 3.3 Develop the connections between individuals and the farm production system 3.4 Develop a 'farm story' and communicate the uniqueness of the enterprise to the community using appropriate communication channels 3.5 Monitor community satisfaction levels through customer feedback and address valid concerns
4. Organise transport	4.1 Identify transport requirements and engage carriers as required 4.2 Arrange transport timing and delivery of product with carrier, processing and or selling facility and, where appropriate, agent 4.3 Comply with any special requirements to ensure appropriate transport 4.4 Comply with all relevant legislative requirements including food safety and organic certification
5. Keep records	5.1 Complete pre and post sale documentation 5.2 Record transactions to ensure traceability and reconciliation can be effected and business performance criteria can be assessed 5.3 Document customer feedback and identify and record potential improvements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG404A Arrange selling through community based marketing.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG404 Arrange selling through community based marketing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify farm produce selling options
- identify and comply with requirements of a community marketing scheme and its characteristics
- establish relationships with community stakeholders and customers
- monitor and record community satisfaction levels and customer feedback and address concerns
- communicate the 'farm story' and the uniqueness of the enterprise to the community
- arrange timely transport and delivery of produce and address any special transport requirements
- comply with transport legislative requirements
- accurately record pre and post sale documentation and transactions
- identify and record potential improvements
- work with natural processes and allowable inputs to improve and maintain soil fertility
- apply enterprise work health and safety policies and guidelines
- implement enterprise environmental sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- applicable federal, state or territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes in selling produce through community based markets
- relevant legislation and regulations relating to work health and safety
- organic certification systems and standards

- organisation policies and procedures related to supply chain management, purchasing, and contracting and tendering
- characteristics and composition of farm business marketing plans
- characteristics of community marketing schemes and the steps within a farm produce supply chain
- product knowledge related to goods and services required by the organisation
- ways to build trust and collaboration as opposed to competition
- business terms and conditions for purchasing, tendering and contracting
- ethical behaviour
- established communication channels and protocols
- procedures for operating electronic communications equipment
- procedures for recording and reporting workplace information and completing relevant documentation

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG405 Implement sustainable practices in the organic farm based business

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage the establishment and implementation of sustainable work practices in organic farming enterprises of all sizes and in a variety of work settings.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to production managers and workplace supervisors in an organic farming enterprise that are responsible for identifying selling options, developing a relationship with community groups, complying with community based marketing scheme requirements, organising appropriate transport and keeping sale records.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within know parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Access the farm businesses guidelines and principles for social, financial and environmental sustainability	1.1 Identify environmental regulations, organic farming requirements and the organic farm plan which apply to the farming enterprise 1.2 Source and interpret environmental and sustainable organic farming information and current best practice guidelines and underlying organic principles 1.3 Identify the impact of best practice guidelines and using organic principles on day to day farm operations and management 1.4 Identify key sustainability practices for an organic farming enterprise 1.5 Access business guidelines and farm practices which comply with sustainable organic farming guidelines and principles
2. Implement established farm business guidelines and principles	2.1 Implement strategies to effectively integrate sustainability principles and practices into the organic farm system 2.2 Identify continuous improvement opportunities and document identified changes to businesses guidelines and principles 2.3 Implement agreed improvements to the farm businesses guidelines and principles
3. Monitor farm business sustainability initiatives for effectiveness and compliance	3.1 Monitor and evaluate the effectiveness and compliance of organic and sustainability practices in terms of environmental, social and financial goals 3.2 Evaluate and report changing trends and techniques relevant to sustainable organic farming for continuous improvement
4. Engage farm business stakeholders in sustainability practices	4.1 Communicate sustainability strategies to stakeholders and relevant staff 4.2 Monitor stakeholder compliance with organic sustainability strategies along the entire supply chain 4.3 Identify and document identified continuous improvement initiatives 4.4 Encourage and assist stakeholders to implement improvements to the system
5. Determine Social Capital benefits from Community engagement with the farm enterprise	5.1 Identify food security and food sovereignty issues addressed by farm business practices 5.2 Monitor compliance with regulatory and legislative requirements in relation to labour management where applicable 5.3 Determine level of engagement with community engagement with local networks and community groups, regional food networks and regional bodies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG405A Implement sustainable practices in the organic farm based business.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG405 Implement sustainable practices in the organic farm based business

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify businesses guidelines and principles for social, financial and environmental sustainability
- identify and interpret environmental regulations, sustainable organic farming requirements, farm plan and current best practice guidelines and principles
- implement strategies to integrate sustainability principles and practices into the farm system and identify continuous improvement opportunities
- monitor farm business sustainability initiatives for effectiveness and compliance
- adopt and document continuous improvement initiatives
- encourage staff and farm business stakeholders to embrace sustainability practices
- apply enterprise work health and safety policies and guidelines
- implement enterprise environmental sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- best practice guidelines
- principles and processes relevant to sustainable organic farming
- compliance requirements for all relevant environmental/sustainability legislation, regulations and codes of practice including resource hazards/risks associated with work area, job specifications and procedures
- sustainability issues including environmental and social issues that relate to an organic farm
- external benchmarks used within an organic farming enterprise, including approaches to improving techniques used and expected outcomes

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG406 Oversee compliance with an organic certification scheme

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to oversee continued compliance with an organic certification scheme.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to production managers and workplace supervisors in an organic farming enterprise that are responsible for ensuring compliance within the scope of the selected organic certification scheme.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within know parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify compliance requirements of the selected organic standard relating to the farm system	1.1 Access the selected organic certification scheme relevant to the operation and management of the organic farming enterprise 1.2 Identify and interpret key clauses and requirements of the organic standard that relate to the existing farm system enterprise mix 1.3 Identify and document compliance of the farm system with the requirements of the selected organic certification scheme 1.4 Identify and document key farm operations that are impacted by the organic standards
2. Keep records to comply with organic certification requirements	2.1 Identify the records and detail required for compliance with the organic certification scheme 2.2 Complete and maintain clear and accurate records to an approved industry standard 2.3 Communicate recording requirements to appropriate stakeholders and key personnel 2.4 Monitor the record keeping process and maintain records as required by the National Organic Standard
3. Support compliance with organic standards by staff in the farm business	3.1 Identify all steps within the production system that require compliance with the selected organic standards 3.2 Support and train staff and key personnel to implement and foster a compliant organic supply chain culture 3.3 Keep accurate records at all key supply chain steps to verify and maintain compliance, and to allow reconciliation and traceability 3.4 Describe certification compliance requirements of staff in Job Descriptions and Key Performance Indicators
4. Meet annual audit requirements of the selected organic certification scheme	4.1 Comply with the specific certification requirements 4.2 Prepare the farm and organic records and documents for audit and ensure accessibility 4.3 Conduct an internal organic audit of the farm system and complete associated records and documents 4.4 Take corrective actions to comply with the specific certification requirements 4.5 Participate in an annual organic audit 4.6 Comply with and close any corrective actions requested
5. Comply with food safety requirements	5.1 Identify food safety requirements that must be satisfied by the farm system to comply with industry regulations and standards 5.2 Communicate food safety requirements to all staff

Element	Performance criteria
	5.3 Keep records to demonstrate compliance with food safety requirements to industry regulations and standards 5.4 Correct any non-conformance issues identified by internal audit or industry compliance audit

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG406A Oversee compliance with an organic certification scheme.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG406 Oversee compliance with an organic certification scheme

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and document compliance requirements of the selected organic standard relating to the farm system
- identify and document key farm operations impacted by the organic standards
- support and train key personnel and staff to implement and foster a compliant organic supply chain culture
- keep accurate records at all key supply chain steps to verify and maintain organic compliance
- conduct an internal organic audit of the farm system and accurately complete associated records and documents
- participate in an annual organic audit and successfully close any identified corrective actions
- identify food safety requirements and ensure compliance of the farm system with industry standards
- ensure all farm records, traceability and production data is kept, monitored and maintained in compliance with National Organic Standard requirements
- comply with requirements of relevant organic standards

Knowledge Evidence

The candidate must demonstrate knowledge of:

- organic standards, compliance requirements and industry specifications
- applicable food safety and licensing requirements
- farm supply chain market requirements for product
- organic quality specifications for product

- enterprise and industry quality assurance systems
- strategies for control of hazards to organic compliance
- document control protocols

Assessment Conditions

Assessment may take place in a simulated or real workplace, however all evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG407 Manage a landless organic production system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage a landless production system such as urban beekeeping, rooftop gardens, log-based mushrooms, aquaponics, worm farming or small scale fish farming.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to managers who work according to the principles of organic and ecological agriculture. Work is likely to be done independently and according to the requirements of the National Standard for Organic and Biodynamic Produce or agro-ecological principles.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Manage health and welfare in the enterprise	<p>1.1. Consider the requirements for the enterprise being managed to ensure optimal health and welfare and implement an optimal growing environment based on Organic Standards or agro-ecological principles</p> <p>1.2 Select and use varieties and genetics for the enterprise to optimise health and that match environmental conditions</p> <p>1.3 Implement a nutrition program for optimal enterprise health</p> <p>1.4 Monitor the enterprise constantly for health and welfare and keep records</p> <p>1.5 Develop preventative health strategies for the enterprise, communicate to others working in the enterprise and implement</p> <p>1.6 Use pest and disease inputs that meet relevant Organic Standards or agro-ecological principles where required</p> <p>1.7 Document use of any inputs for pest and disease management. Follow restrictions if applicable on prohibited or restricted inputs for organic systems</p> <p>1.8 Ensure transport and handling of organisms or produce is in compliance with organic certification requirements and animal welfare where applicable</p> <p>1.9 Maintain enterprise records required for organic certification where required</p>
2. Develop and implement enterprise nutrition requirements	<p>2.1 Determine nutrition requirements for the enterprise that takes into account seasonal variability and biological needs</p> <p>2.2 Implement a nutritional strategy that ensures optimal enterprise health at all times</p> <p>2.3 Use nutritional inputs in the nutrition program that meets relevant Organic Standards or agro-ecological principles</p> <p>2.4 Implement good storage practises for inputs to ensure quality is maintained</p> <p>2.5 Where applicable, integrate resources and nutrients from local and complementary biomass sources as part of the nutritional strategy</p> <p>2.6 Keep feed records for enterprise management and to ensure compliance to Organic Standards where applicable</p>
3. Develop and manage a suitable growing environment for the	3.1 Undertake planning to ensure a suitable growing environment for the enterprise that takes into account all biological needs for the organisms

Element	Performance criteria
enterprise	3.2 Implement and manage enterprise infrastructure to ensure optimal growing conditions and enterprise welfare at all times 3.3 Minimise waste and outputs from the enterprise by reusing and recycling by-products where possible 3.4 Monitor the growing environment and infrastructure and improve where applicable 3.5 Keep records on activities where applicable
4. Implement a suitable restocking or breeding program for the enterprise	4.1 Identify suitable source of organisms or genetics for the enterprise 4.2 Ensure requirements for replacement stock for the enterprise are being met 4.3 Select and use varieties and genetics for the enterprise that match business objectives 4.4 Ensure the breeding or restocking strategy is meeting all animal welfare needs at all times where applicable 4.5 Ensure transport and handling of any source stock is in compliance with organic certification requirements and animal welfare where applicable 4.6 Implement enterprise animal welfare policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG407 Manage a landless organic production system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- implement and manage a landless organic production system
- provide suitable nutrition and living environment for a landless based biological enterprise based on the relevant Organic Standards or agro-ecological principles
- manage health and welfare for a landless enterprise based on organic or agro-ecological principles
- manage breeding or restocking for a landless enterprise based on organic or agro-ecological principles
- maintain recording systems for production system
- implement biosecurity requirements
- implement organic or agro-ecological principles
- implement enterprise animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- organic certification requirements
- organic and agro-ecological principles
- enterprise relevant pests and diseases
- relevant animal welfare legislation and code of practices
- nutrition management, including feed types and assessment, feed budgeting and feeding strategies
- management options for preventative health based on an understanding of nutrition, life cycles, genetic selection, environmental conditions and acquired immunity

- management options for feeding and breeding based on organic and agro-ecological principles
- environmental conditions and infrastructure requirements for optimal enterprise performance and welfare
- work health and safety practices
- record keeping requirements
- relevant principles, practices and inputs allowable under the National Standard for Organic and Biodynamic Produce

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG408 Manage on farm composting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage on farm composting.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to farm managers who work according to the principles of sustainable, organic and ecological agriculture. Work is likely to be done independently and according to the requirements of State regulations, Australian Standards, the National Standard for Organic and Biodynamic Produce or agro-ecological principles

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within know parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Organise for composting	1.1 Confirm composting technology, recipe and method to be used are as appropriate to raw material types and farm enterprise needs 1.2 Define compost quality requirements for end product 1.3 Identify composting site requirements and prepare the composting area 1.4 Identify and implement measures are to manage drainage, dust, noise and odours 1.5 Select and check for serviceability and safe operation machinery, equipment and materials appropriate to the job 1.6 Identify and assess potential work health and safety hazards and take action to minimise risk to self and others 1.7 Select, fit, use, suitable personal protective equipment (PPE) 1.8 Maintain and store according to work requirements, manufacturer specifications and enterprise procedures 1.9 Comply with enterprise work health and safety guidelines
2. Prepare raw materials and compost on farm	2.1 Identify and collected raw materials and additives for composting, check to ensure compliance with enterprise procedures or organic standards if applicable; including assessment of physical or chemical contamination 2.2 Pre-process raw materials into suitable forms for composting if required 2.3 Mix raw materials are into suitable compost mixtures for composting according to documented recipes 2.4 Handle feedstock mixtures for composting according to technology, appropriate method, and industry best practice and enterprise procedures 2.5 Assign batch numbers or codes, and create batch documentation to enable tracking of batch through compost production cycle if required
3. Manage and monitor the composting process	3.1 Manage compost batches as required through the composting cycle 3.2 Monitor composting batch by observation or by use of field testing equipment to maintain effective composting process through the compost cycle 3.3 Maintain records for process control indicators through the compost production cycle 3.4 Identify problems observed at any stage of the composting

Element	Performance criteria
	<p>process are and take remedial action to maintain effective and consistent compost production</p> <p>3.5 Follow site quarantine, biosecurity protocols and farm and personal hygiene requirements are as required by enterprise guidelines</p>
<p>4. Inspect compost quality and maintain site</p>	<p>4.1 Inspect and assess finished compost is to determine if quality indicators have been met</p> <p>4.2 Maintain and clean loading-shifting machinery and other processing equipment as required to avoid contamination between batches</p> <p>4.3 Store raw materials and finished compost products in designated areas and kept processing site clean</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG408 Manage on farm composting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- implement and manage an on farm compost system
- manage composting processes
- manage a composting site
- evaluate compost quality and implement remedial actions if required
- implement enterprise work health and safety policies
- follow site quarantine and biosecurity protocols

Knowledge Evidence

The candidate must demonstrate knowledge of:

- compost quality standards
- basic principles of composting
- different methods of composting
- characteristics of a range of raw materials
- fundamental characteristics of compost quality
- steps in pre-processing compost materials
- batch documentation techniques
- site and equipment requirements for on farm composting
- key process control stages critical to consistent compost production
- overview of systems and technologies used in compost production, particularly as relevant to farm
- characteristics and categories of a range of compost products.
- relevant environmental, work health and safety legislation and regulations

- record keeping requirements
- site quarantine and biosecurity protocols
- agro-ecological principles
- principles, practices and inputs allowable under the National Standard for Organic and Biodynamic Produce if applicable

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG501 Develop an organic management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop an organic management plan (OMP).

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to those producers who develop an OMP to convert an agricultural or horticultural farm to an organic, biological and ecological system. It requires the capability to set objectives to meet organic certification requirements of the National Standard for Organic and Biodynamic Produce.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Locate and access assistance in developing the OMP	1.1 Locate and access sources of support and advice including agricultural extension officers and training programs 1.2 Assess industry publications and internet sources for their value in informing decision making 1.3 Seek and consider contributions of work colleagues and others during planning process 1.4 Access information from certifier and relevant Organic Standards on OMP requirements
2. Design the organic farming system to be described in the OMP	2.1 Develop or obtain map of property to be covered by OMP 2.2 Determine time scale to be addressed in plan 2.3 Collect information on soil fertility and management, and weed, pest, disease and animal health status and their interrelationships to serve as benchmarks for development of management options 2.4 Obtain regional catchment targets for land, water and biodiversity and identify those applicable to property and sub-catchment 2.5 Identify components of OMP that need to be developed 2.6 Develop suitable format for planning documents 2.7 Identify risks to organic integrity for the farm enterprise and outline strategies to manage these risks
3. Develop soil fertility plan	3.1 Undertake or commission a soil fertility assessment of farm production areas 3.2 Map soil types and topography on farm plan 3.3 Develop and document soil fertility plan that amends soil chemistry, soil structure and soil biology, based on assessment of soil test results, enterprise performance, overall budget and intended cropping/grazing regime 3.4 Identify appropriate inputs according to the National Standard for Organic and Biodynamic Produce and/or agro-ecological principles 3.5 Document plan according to established format
4. Develop soil management sub-plan	4.1 Determine suitability of land for production based on soil type, slope, aspect and previous use 4.2 Develop soil management plan to enhance soil structure and prevent compaction and water logging 4.3 Identify appropriate inputs according to the National Standard for Organic and Biodynamic Produce or agro-ecological principles

Element	Performance criteria
	4.4 Document sub-plan according to established format 4.5 Identify farm management practices and strategies that enhance soil fertility
5. Develop weed management sub-plan	5.1 Identify problematic weed species and observe weeds as an indicator of soil health 5.2 Identify life cycles of weeds species to inform management options 5.3 Identify appropriate inputs according to the National Standard for Organic and Biodynamic Produce or agro-ecological principles 5.4 Develop integrated farming strategies and cultural practices for managing weeds 5.5 Document sub-plan according to established format
6. Develop and design an integrated pest and disease management sub-plan	6.1 Collect and document evidence of pest and disease burden in farming system 6.2 Observe and monitor pests and diseases and their life cycles 6.3 Evaluate evidence of pest and disease burden to develop strategy for management 6.4 Evaluate pests and diseases as indicators of farming system health 6.5 Identify options for addressing pest and disease issues, including improving soil health, cultural practices and system redesign 6.6 Identify appropriate inputs according to the National Standard for Organic and Biodynamic Produce or agro-ecological principles 6.7 Document sub-plan according to established format
7. Develop animal health and management sub-plan	7.1 Identify regional and farm-based animal health issues 7.2 Identify options for preventative actions aimed at establishing and maintaining optimal animal health 7.3 Identify options for treating animal health issues 7.4 Develop a sustainable grazing management plan that addresses feed requirements, stocking densities and meets regional catchment land and soil condition targets where applicable 7.5 Develop an animal management program that ensures compliance to organic standards and/or agro-ecological principles 7.6 Document sub-plan according to established format
8. Integrate and finalise the organic management plan	8.1 Integrate sub-plans for soil fertility and management, and weed, pest, disease and animal health 8.2 Develop and implement record-keeping system to track various components of OMP as they are put into practice and reviewed 8.3 Review and update OMP annually noting any changes to farm practices

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG501A Develop an organic management plan.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG501 Develop an organic management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and develop required components of an OMP for a property
- understand and use interrelationships between soil, plant and animal health and farming system's resilience when developing plan
- identify options for prevention and treatment of risks
- apply appropriate regional catchment targets
- document the plan in compliance with certification requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles of organic agriculture, especially fundamental role of soil health
- principles of sustainable production
- requirements and components of an OMP
- systems approach to agriculture and horticulture
- organic and biodynamic certification requirements

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG502 Prepare the enterprise for organic certification

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare an enterprise for organic certification.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to farmers who are preparing a production enterprise for compliance with the Federal Government Department of Agriculture, accredited certification bodies and the National Standard for Organic and Biodynamic Produce.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Investigate and access information sources and support for conversion to organic production	1.1 Establish contact with other organic producers and marketers of organic products 1.2 Identify and use other sources of support and advice including agricultural extension officers and training programs 1.3 Assess literature, publications and internet sources of information to support decision-making for usefulness and reliability 1.4 Obtain certification process requirements from certification bodies and select appropriate certifier 1.5 Investigate roles and responsibilities of inspector, certifier and accreditation bodies, including role of government departments
2. Conduct a risk assessment of the site	2.1 Identify and document previous land use and chemicals applied on the site 2.2 Undertake and document risk assessment for potential on-farm contaminants 2.3 Assess potential contamination risk from off-farm land use and agricultural practices 2.4 Incorporate risk management procedures to minimise potential contamination from internal and external sources into a certification preparation plan
3. Develop and implement hazard analysis critical control point (HACCP) based procedures	3.1 Identify and document production processes and activities, and those sections of supply chain under one's control, according to certification bodies' requirements and the National Standard for Organic and Biodynamic Produce 3.2 Identify, document and compare quality, organic and statutory product standards to be met to actual standards achieved by product and enterprise 3.3 Identify and document corrective actions or improvements to processes and activities 3.4 Develop and implement procedures and processes for monitoring and annual review, including an internal review protocol where appropriate 3.5 Where required integrate a food safety management program
4. Manage customer feedback	4.1 Develop and implement procedures to obtain, analyse and respond to customer feedback on quality and integrity of organic product 4.2 Develop, communicate to relevant parties and monitor product recall procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG502A Prepare the enterprise for organic certification.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG502 Prepare the enterprise for organic certification

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify requirements for organic certification and apply them to one's enterprise
- identify critical points in supply chain at which the organic integrity of one's product may be compromised
- implement and monitor effective risk management for those parts of supply chain under one's control
- identify practices and strategies to minimise the risk of contamination and non conformance with organic standards
- develop an operational plan for conversion to organic production

Knowledge Evidence

The candidate must demonstrate knowledge of:

- certification process
- chain of custody
- HACCP (Hazard Analysis and Critical Control Points) principles and risk management
- health and food safety requirements and issues
- labelling requirements for domestic and export markets
- market for organic produce, including the organic movement and organic industry
- National Standard for Organic and Biodynamic Produce
- principles of organic agriculture
- procedures and responsibilities in the case of product recall
- procedures for conducting and documenting a risk assessment
- regulatory requirements and their domestic and international contexts

- requirements of an OMP, including record keeping
- role of quality management systems in organic industry including documentation requirements
- working knowledge of the regulated organic industry, including the role of the government, certification bodies and inspectors

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG503 Design and document an organic farm landscape

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design and document an organic farm landscape that will be used as the basis for an organic farm enterprise.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within know parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Source legislative requirements which	1.1 Identify and access applicable legislative documents and codes of practice relevant to the design and planning of an organic farming

Element	Performance criteria
impact on the management of an organic farm	enterprise 1.2 Investigate work practices and procedures which follow industry standards 1.3 Identify and interpret key clauses and requirements which apply to organic production and marketing 1.4 Identify relevant work practices and procedures which comply with regulatory requirements and codes of practice
2. Audit the natural resources and infrastructure of the property	2.1 Identify and record property physical and biological characteristics and landscape features 2.2 Develop a farm soil map 2.3 Determine land capability 2.4 Conduct a risk analysis of the farm and adjoining land-use to determine potential compliance issues with organic standards, legislative and environmental requirements
3. Develop an organic landscape plan	3.1 Identify key design parameters to meet financial, social and sustainability goals 3.2 Develop and document key farm rules 3.3 Investigate short term and long term uncertainties for the farm system 3.4 Investigate design options which impact on these long term changes 3.5 Identify and use appropriate design tools 3.6 Develop a concept framework
4. Document the organic landscape plan	4.1 Review the draft plan against the financial, social and sustainability goals 4.2 Document the plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG503A Design and document an organic farm landscape.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG503 Design and document an organic farm landscape

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- source and interpret legislative requirements industry standards and codes of practice
- identify compliant work practices and procedures
- conduct an audit of the natural resources and infrastructure of the property
- identify physical and biological characteristics and landscape features of the property
- develop farm soil map and determine land capability
- develop an organic landscape plan using appropriate development tools
- revise a draft plan and document the final organic landscape plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- applicable legislative documents and codes of practice relevant to farm landscape planning
- landscape types
- habitat and plant communities on farm
- relationship between land shape and soil type
- soil types
- different categories of cultural sites
- organic certification requirements
- landscape hydrology
- landscapes for agro-ecosystems
- native habitat requirements
- the requirements of the organic standard and agro-ecological principles

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG504 Develop and manage a community based marketing supply chain

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and manage a community based marketing supply chain.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to rural enterprise managers who develop and manage marketing strategies and systems within a community based marketing scheme to meet desired production and business outcomes.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within know parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Evaluate the suitability of different community marketing options for farm products	1.1 Research and document non traditional selling options 1.2 Identify different community marketing models applicable to the farm system 1.3 Identify key input supply chain steps and stakeholders and relevant certification requirements 1.4 Evaluate different options
2. Determine the marketing chain processes to participate in the selected community marketing schemes	2.1 Research and identify applicable legislative, environmental, and certification requirements relevant to managing a community based marketing chain 2.2 Document specifications for the various components of the marketing chain management system in line with organisational and legislative requirements 2.3 Document traceability requirements of the marketing chain
3. Determine appropriate community marketing strategies for farm products	3.1 Identify communities that have a potential relationship with the farm system 3.2 Document the characteristics and values of the identified communities 3.3 Match community characteristics and values to farm system 3.4 Establish and document market specifications to meet community expectations 3.5 Identify and document appropriate community marketing strategies 3.6 Identify and assess risks in strategy
4. Establish product marketing chain requirements to meet marketing options	4.1 Map required steps in marketing chains to supply identified market 4.2 Establish farm business requirements for each step in marketing chain 4.3 Establish compliance requirements at each step in marketing chain 4.4 Develop record keeping requirements for each step in marketing chain
5. Develop and document a community based marketing plan	5.1 Document required processes for the chosen enterprises and production systems 5.2 Identify and document marketing targets 5.3 Identify the key factors that differentiate product 5.4 Develop and document a promotion plan

Element	Performance criteria
	5.5 Collate customer feedback and use to improve market outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG504A Develop and manage a community based marketing supply chain.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG504 Develop and manage a community based marketing supply chain

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research and evaluate the suitability of different community marketing options for farm products
- research and identify applicable legislative, environmental, and certification requirements relevant to managing a community based marketing chain
- document specifications for the various components of the marketing chain management system in line with organisational and legislative requirements
- establish and document market specifications meet community expectations
- establish product marketing chain to meet marketing options
- establish farm business requirements for each step in the marketing chain
- establish compliance requirements at each step in the marketing chain
- conduct record keeping requirements for each step in the marketing chain
- develop and document a community based marketing plan
- develop and document a promotion plan
- collate customer feedback and use to improve market outcomes

Knowledge Evidence

The candidate must demonstrate knowledge of:

- applicable federal, state or territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes in selling produce through community based markets
- relevant legislation and regulations relating to work health and safety
- organic certification systems and standards
- rural produce marketing and presentation

- organisation policies and procedures related to supply chain management, purchasing, and contracting and tendering
- characteristics and composition of farm business marketing plans
- characteristics of community marketing schemes and the steps within a farm produce supply chain
- product knowledge related to goods and services required by the organisation
- ways to build trust and collaboration as opposed to competition
- business terms and conditions for purchasing, tendering and contracting
- ethical behaviour
- established communication channels and protocols
- procedures for operating electronic communications equipment
- procedures for recording and reporting workplace information and completing relevant documentation

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG505 Develop and monitor a sustainable production plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and monitor a sustainable production plan for an organic and/or agro-ecological farming system.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within know parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify personal and	1.1 Identify and record personal goals

Element	Performance criteria
enterprise goals	1.2 Identify and document physical, biological, social and financial resources under management 1.3 Identify and analyse the values, expectations and personal goals of customers, stakeholders and employees 1.4 Identify and document sustainability goals using current and historical industry data and organisational records
2. Research and evaluate available sustainable production systems	2.1 Identify and document potential enterprises and evaluate against identified goals and resources 2.2 Research and evaluate applicable sustainable production systems information from a range of sources for identified enterprises 2.3 Identify and document a selected production system that meets sustainability and enterprise management goals of the farm 2.4 Compare the elements of the selected system with the systems and production processes that currently exist on the farm 2.5 Assess the selected system against enterprise goals and sustainability principles and record the findings
3. Develop a sustainable production plan	3.1 Document required modifications to existing farm system processes and infrastructure for the chosen enterprises and production systems 3.2 Identify and document optimal production targets 3.3 Identify inputs and system design elements required to achieve the production targets 3.4 Establish risk management strategies 3.5 Identify record keeping requirements 3.6 Develop and document a sustainable production plan for the selected enterprises and production systems
4. Monitor and evaluate effectiveness of the sustainable production systems	4.1 Establish farm system monitoring procedures and performance indicators 4.2 Monitor performance indicators and against production and sustainability targets 4.3 Evaluate production and sustainability data against the sustainable production plan goals 4.4 Modify the enterprise mix or production system where differences between the sustainable production plan and actual results are identified 4.5 Identify, monitor and assess environmental impacts and work health and safety hazards relating to the production processes throughout the production cycle
5. Record and manage information and data	5.1 Create and maintain records and documents in line with the production plan, the work health and safety requirements, and machinery and equipment management programs

Element	Performance criteria
	5.2 Maintain record keeping systems and data to enterprise and industry standards and requirements 5.3 Prepare and assess recommendations for future sustainable production plans 5.4 Document revised plans and note changes in organic management plan (OMP), if applicable

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG505A Develop and monitor a sustainable production plan.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG505 Develop and monitor a sustainable production plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify personal and enterprise goals
- identify and document physical, biological, social and financial resources under management
- research and evaluate sustainable production systems and select and document a production system that meets sustainability and enterprise management goals
- develop a sustainable production plan
- match land capacity with production system design
- monitor and evaluate effectiveness of the sustainable production system
- modify the enterprise mix or production system where differences between the sustainable production plan and actual results are identified
- record and manage farm system information and data

Knowledge Evidence

The candidate must demonstrate knowledge of:

- applicable federal, state or territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes in developing and monitoring a sustainable production plan
- relevant legislation and regulations relating to work health and safety, contractor engagement, animal health and welfare, chemical use and application, vehicle and plant use and soil and water degradation issues
- environmental protection requirements and codes of practice, including the safe disposal of products and waste material, available to the organisation

- organisational policies and procedures, standards and site requirements for risk management and hazard identification
- sustainable land use principles and practices applicable in the region
- farm planning processes

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCORG506 Manage an agroecology production system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to use agroecology principles in managing all elements of a farm ecosystem including the soil ecosystem, vegetation, animals, pests and diseases to achieve and maintain overall ecological and economic health of the farm ecosystem and farm production.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters and use discretion and judgment in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Organic Production (ORG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify the farm agroecosystem functions at a systems level	1.1 Identify and map energy flows through a farm agroecosystem 1.2 Identify and map nutrient cycles through different parts of a farm ecosystem 1.3 Identify disturbance points in the farm ecosystem succession 1.4 Develop a model of the farm ecosystem and its elements 1.5 Identify areas of complexity and simplicity within the farm ecosystem 1.6 Identify ecosystem functions that can be used to replace the use of external inputs in the farm production systems 1.7 Identify interactions between elements of farm ecosystem 1.8 Assess health of existing farm ecosystems
2. Develop plans to enhance farm agroecosystem	2.1 Identify areas within the agroecosystem that require enhancement 2.2 Identify methods that encourage niche development, increase complexity in the farm agroecosystem and improve interactions between different components of farm agroecosystem 2.3 Document the implementation plan
3. Manage Farm Agroecosystems	3.1 Identify and monitor appropriate parts of the ecosystem 3.2 Set up monitoring system 3.3 Comply with requirements for monitoring determined by organic standards and legislative requirements 3.4 Review measured ecosystem and farm production performance with expected performance and adjust plan in response to differences

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCORG506A Manage an agro-ecology production system.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCORG506 Manage an agroecology production system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify the farm agro ecosystem functions at a systems level
- assess the health of existing farm ecosystems
- develop plans to enhance farm agroecosystem
- manage and monitor the development of a farm ecosystem
- review ecosystem and farm production performance

Knowledge Evidence

The candidate must demonstrate knowledge of:

- advantages of ecological agriculture
- ecosystem processes, energy flows, nutrient cycles, biological succession, predator and prey relationships, ecological niche
- relationships between ecosystems and agricultural production
- application of ecosystem processes to a production system

Assessment Conditions

Competency is to be assessed in the workplace and/or a simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM201 Recognise plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recognise commonly encountered plants. Plants include desired species as well as weeds.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for plant recognition	1.1 Clarify work activity instructions with supervisor 1.2 Identify any work health and safety hazards and tell supervisor 1.3 Prepare resources and equipment for use in recognition activity 1.4 Identify, select and prepare available processes for plant

Element	Performance criteria
	recognition 1.5 Identify a range of desirable and non-desirable plants requiring recognition
2. Recognise specified plants	2.1 Carry out a visual inspection of plants 2.2 Recognise specified plants by their identifiable characteristics and name them 2.3 Record brief descriptions of plant habits, characteristics and significant features 2.4 Consult with others, browse the internet browsing, collect specimen collections, consult field guides and use workplace notetaking to assist with plant recognition 2.5 Seek advice when necessary and where appropriate to assist with plant recognition
3. Update the reference collection	3.1 Document information about plants and add to the reference collection 3.2 Update reference collection as new plants are recognised

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHPCPM201A Recognise plants.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPM201 Recognise plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare resources and processes for use in recognition activity
- identify desirable and non-desirable plants requiring recognition
- recognise and describe plant attributes
- describe specific handling requirements and growth requirements
- use appropriate methods of research to assist with plant recognition
- document and update information about identified plants

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant recognition
 - plant morphology and physiology as they relate to recognising plants
 - plant nomenclature
 - procedures for obtaining and providing advice and information about plants
 - plant recognition techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM202 Collect, prepare and preserve plant specimens

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect, prepare and preserve plant specimens for recording or identification purposes.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Collect specimen	1.1 Collect the largest sample practical to fit on herbarium sheet 1.2 Confirm the sample includes flowers and fruit, leaves and roots and other features required for positive identification 1.3 Record observations of plant 1.4 Identify individual specimens in a manner that allows them to be

Element	Performance criteria
	linked to observations
2. Press plants	2.1 Protect samples from wilting until pressing 2.2 Arrange specimens on sheets ready for pressing 2.3 Press specimens 2.4 Attach archival specimens to suitable material with observations attached following established material 2.5 Pack specimens to be submitted for identification, including all data from collection observations as required by herbarium
3. Record data	3.1 Record and catalogue all data relating to specimens

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM202A Collect, prepare and preserve plant specimens.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPCM202 Collect, prepare and preserve plant specimens

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect plant specimens for identification
- arrange and press plant specimens
- attach archival specimens to material, together with observations
- pack specimens, with collection observation data, for identification
- record and catalogue data

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant collection
 - how to recognise plants to be collected
 - how to select the most suitable specimen for collection
 - how to store the specimens correctly

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM203 Fell small trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to fell small trees where hazards have been assessed as low risk.

It is an introductory or base-level unit that covers felling procedures for small trees.

This unit applies to individuals who undertake defined activities with specialised tools and methods, work in a structured context, apply knowledge and skills to demonstrate autonomy and limited judgement, and provide solutions to a limited range of predictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant state or territory.

Pre-requisite Unit

AHCMOM213 Operate and maintain chainsaws

Unit Sector

Plant culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Assist in preparation of work site	1.1 Determine location of worksite and correct tree from the scope of works 1.2 Identify site hazards, assess risks and report to supervisor 1.3 Confirm work zone with work crew and monitor site 1.4 Identify first aid and emergency personnel, equipment and procedures 1.5 Record and implement work health, safety, site, environmental and traffic control measures
2. Identify tree felling requirements	2.1 Identify hazards associated with felling operation 2.2 Assess risks and report to supervisor 2.3 Examine topography and site conditions 2.4 Identify factors influencing the tree felling operation and confirm findings with supervisor 2.5 Identify <i>trees considered outside own skill level for felling</i> and seek assistance from appropriate personnel 2.6 Determine natural direction of fall, safe fall zone and exclusion zone and confirm with supervisor 2.7 Receive instructions for tree felling operations from supervisor and clarify instructions prior to undertaking work
3. Prepare for tree felling	3.1 Select and prepare felling equipment and component options appropriate to the task being undertaken 3.2 Prepare, transport and appropriately position support tools to minimise felling delays 3.3 Select, check, use, maintain and store suitable safety and personal protective equipment (PPE) 3.4 Clear fall zone of obstacles and articles which may be damaged by felled tree 3.5 Establish clear escape route appropriate to site
4. Fell tree	4.1 Note and monitor location of other personnel 4.2 Carry out tree felling operation 4.3 Communicate with work team during operations using voice, hand and whistle signals 4.4 Determine standard tree felling techniques, patterns and cut sequences by ground conditions and state of canopy 4.5 Take corrective action in response to changing conditions or problems encountered 4.6 Use planned escape route when tree starts to fall 4.7 Monitor fall of tree and movement on ground until felled tree is stable 4.8 Use low risk work practices in all activities

Element	Performance criteria
5. Complete tree felling operation	5.1 Determine appropriate method of clearing the site of felled tree 5.2 Select and use machinery required for removal of felled tree 5.3 Clear fall site of tree and all tree debris 5.4 Clean and store all machinery and equipment on completion of operation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCARB202A Fell small trees.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPM203 Fell small trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare, transport and appropriately position support tools to minimise felling delays
- assess topography and site conditions, identify factors influencing tree felling operation and confirm findings with supervisor
- receive instructions for tree felling operations from supervisor and clarify prior to undertaking work
- clear fall zone of obstacles and articles which may be damaged by felled tree
- confirm first aid and emergency personnel, equipment and procedures
- identify site hazards, assess risks and report to supervisor
- record and implement work health, safety, site, environmental and traffic control measures
- select, check, use, maintain and store suitable safety and personal protective equipment
- confirm work zone with work crew and monitor location of other personnel
- determine natural direction of fall, safe fall zone and exclusion zone and confirm with supervisor
- determine standard tree felling techniques by ground conditions and state of canopy
- establish clear escape route appropriate to site
- safely operate a chainsaw to fell small trees
- monitor fall of tree and movement on ground until felled tree is stable
- take corrective action in response to changing conditions or problems encountered

Knowledge Evidence

The candidate must demonstrate knowledge of:

- corrective action
- emergency and first aid procedures
- felling equipment and components

- first aid and emergency personnel, equipment and procedures
- ground conditions
- how to determine natural direction of fall
- how to establish a clear escape route
- industry standard terminology
- low risk work practices
- obstacles and articles which may be damaged by felled trees
- positioning support tools
- safe operating procedures for felling small trees
- safe fall and exclusion zones
- selection, preparation and appropriate equipment for task
- standard tree felling techniques, patterns and cut sequences
- topography, site conditions and other factors influencing tree felling operations

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM301 Implement a plant nutrition program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor and control the nutritional requirements of and applications to plants across a range of situations and environments.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for implementation of the plant nutrition program	1.1 Identify goals, target site, soils, plant species and varieties for implementing the program 1.2 Identify materials for soil and plant treatments and locate the storage site or supplier details

Element	Performance criteria
	1.3 Locate services using site plans and in consultation with the supervisor 1.4 Identify work health and safety hazard, assess risks and implement control measures 1.5 Select and use suitable personal protective equipment (PPE)
2. Monitor soil pH	2.1 Monitor soil pH in the implementation site in relation to plant nutrition 2.2 Identify, select, compare and source products useful in changing soil pH 2.3 Assess product application methods according to product type and type of growing media
3. Determine nutritional problems in plants	3.1 Identify common nutrient deficiency and toxicity problems in plants, using visual inspection 3.2 Consult supervisor or horticulturist, as required, to determine causes of nutritional or toxicity problems 3.3 Identify, compare, select and source soil ameliorants to improve soil fertility
4. Prepare to use fertilisers	4.1 Select a fertiliser that is compatible with plant species and type of growing media 4.2 Assess fertiliser application methods, taking into account the fertiliser type, soils and the environmental implications 4.3 Apply fertilisers appropriate to the plant growing cycle and the organisation's fertiliser calendar
5. Prepare application equipment	5.1 Select tools, equipment and machinery 5.2 Carry out pre-operational and safety checks on tools, equipment and machinery 5.3 Calibrate tools, equipment and machinery
6. Apply specific products at appropriate rates	6.1 Select specific products based on their analysis to meet plant needs 6.2 Calculate product application rates to optimise plant benefit and minimise environmental impact 6.3 Apply specific products at the correct rate, timing and method according to the product type and analysis and with consideration of the environmental implications 6.4 Record product applications 6.5 Monitor, document and report target plant response to the plant nutrition program, as well as non-target effects responses including environmental impacts or pests

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM301A Implement a plant nutrition program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMB01 Implement a plant nutrition program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify goals, target site, soils and plants for implementing the program
- identify materials and their supply source
- monitor soil pH in the implementation site
- identify appropriate products and application methods appropriate to implementing nutrition program
- estimate treatment and product requirements, material sizes and quantities
- conduct a site hazard identification and risk control assessment
- determine nutritional problems in plants
- plant nutrition program specifications
- apply specific products at appropriate rates and record their application
- select, check and calibrate tools, equipment and machinery

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant nutrition
 - botany and plant physiology
 - methods of nutrient uptake by plants
 - nutrient cycling and its practical relevance to the specific plants and soils
 - nutrients required by plants grown within the enterprise
 - soil ameliorants commonly required to treat the soil problems experienced by the enterprise
 - the effects of nutrient deficiency and toxicity on plant species and varieties

- the environmental implications of soil ameliorant and fertiliser use
- the main simple and compound fertiliser products available to the enterprise including analysis, solubility, salt index, application rates and costs
- the relationship between soil characteristics and the availability of nutrients

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM302 Provide information on plants and their culture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide information to clients and others about plants and their cultural requirements.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify the issue	1.1 Initiate contact with the client when appropriate 1.2 Assist the client in explaining the issue by using attentive listening and questioning techniques 1.3 Clarify the nature of the issue by gathering all relevant information from the client

Element	Performance criteria
	1.4 Define the issue as closely as possible according to the amount of information gathered 1.5 Advise the client that expert advice may be required to assist them further with their issue
2. Decide on preferred solution	2.1 Identify and develop options and strategies using available in-house and online reference material, product information, own experiences and sharing collective workplace knowledge 2.2 Examine and evaluate options and strategies using sound problem-solving techniques 2.3 Determine the optimal solution based on reasoned argument, appropriate evidence and sound cultural principles
3. Provide the preferred solution	3.1 Explain the recommended solution, method of application and probable outcomes to the client 3.2 Refer to the original source of the plant and its cultural requirements where necessary 3.3 Respond to client requests for clarification or expansion by the use of attentive listening and questioning techniques

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM302A Provide information on plants and their culture.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMB02 Provide information on plants and their culture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop product knowledge through research and access to in-house and online information
- interpret information sheets, labels, horticultural literature, specifications and design symbols
- investigate requests for information, identify and evaluate options, decide on a solution, and deliver recommendation and information to the client
- select plants from a range of available stock lists
- communicate with clients, work team members, supervisors, suppliers, contractors and consultants

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles of plant culture
 - broad range of plant species and their cultural requirements
 - duty of care in provision of advice and recommendations to retail, commercial and private clients
 - local plant suppliers, consultants, services, products and contractors
 - pest and disease symptoms, basic physiology and life cycle of pests and diseases, vulnerable plant growth stages, treatment thresholds, treatment products, effective application procedures and environmental implications
 - plant identification techniques, plant selection, plant physiology, habit and growth characteristics of the plants
 - soil characteristics particularly in relation to the local region

- weed species, growth stages, treatment thresholds, treatment products, effective application procedures and environmental implications

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM303 Identify plant specimens

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to inspect and describe the features and attributes of a plant for the purpose of plant identification and providing information to a client or organisation.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Inspect plant morphological features	1.1 Inspect the form and structures of the specimen and describe it in botanical terms 1.2 Record qualitative and quantitative data in a format listing the main observable features

Element	Performance criteria
	1.3 Use all relevant available senses to assist in recognition 1.4 Note useful identifying attributes of the leaf, flower, vegetative growth, fruiting body, stem, bark and habit 1.5 Determine plant group or family characteristics
2. Determine status of health	2.1 Inspect plant specimen for health and general condition 2.2 Use observations to identify any diseases, pests or deficiencies indicative of plant groups 2.3 Record, evaluate and, where possible, identify relevant data
3. Identify the specimen	3.1 Use research, reference material, field guides and taxonomic keys to define a closer identification 3.2 Inspect photographs or illustrations or physical specimens and compare to similar specimens in the reference material and database 3.3 Analyse unknown specimens for specific characteristics and identify to species and cultivar level where possible
4. Report on the process results	4.1 Compile the information data observed for the plant's morphological features 4.2 Label all the information data recorded and highlight key identifying features observed in the process 4.3 Produce a report of the identification process and list the compiled data 4.4 Inform the client or organisation of the results of the identification process

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM303A Identify plant specimens.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMB03 Identify plant specimens

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- Identify, describe in botanical terms and record key features of plant morphology
- compile a database of plant specimens and characteristics
- determine the health of plants
- recognise plants common to a region
- research multiple sources of reference material
- produce a report of the identification process with a list of compiled and labelled data observed on the plant's morphological features
- liaise with clients

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant identification
 - basic physiology and life cycle of pests and diseases
 - botany, plant morphology, physiology and taxonomy
 - methods of data capture
 - plant identification techniques
 - problem-solving techniques
 - soil characteristics particularly in relation to the local region
 - symptoms of plant pests and diseases

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM304 Report on health and condition of trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to report on general tree health and condition. It applies to the evaluation of trees for the purpose of work proposed in a local government area including parks and gardens, building and construction sites, public and private environments, and schools.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plant culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare tree inspection requirements	1.1 Determine scope of work 1.2 Identify and prepare tools and equipment for inspection 1.3 Document and implement traffic management requirements

Element	Performance criteria
	where required
2. Inspect the tree	2.1 Determine the type, location and condition of tree 2.2 Inspect tree for obvious signs of structural damage, defects, pests, diseases and fauna 2.3 Identify and record tree condition on the inspection form
3. Record findings and advise client	3.1 Record tree location and site details 3.2 Recommend follow up treatments or further inspection from a consulting arborist 3.3 Complete report on tree health and condition and advise client-stakeholder

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMB04 Report on health and condition of trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare materials and implement traffic management requirements for tree inspection
- document and implement traffic management requirements where required
- recognise a range of tree species and cultivars common to the region
- identify and report on the general health and condition of trees
- identify obvious potential structural defects, damage, pests and and/or diseases
- recommend treatments for pest and disease problems
- recognise potential structural or other defects that require inspection by an arborist
- record findings and inform client

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for inspecting trees
 - AS4373-2007 Pruning of amenity trees
 - botany and tree physiology
 - local government tree protection and preservation regulations
 - methods of determining tree dimensions
 - methods of low risk work
 - recognition of a wide range of trees common to the region
 - relevant Code of Practice
 - signs of structural defects, decay, damage and stress in trees

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM401 Recommend plants and cultural practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recommend plants and cultural practices. It applies to both sales staff in plant nurseries and garden centres and others in the amenity horticulture industries.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify client preferences and	1.1 Initiate contact with the client when appropriate 1.2 Clarify the purpose of the planting and cultural and environmental

Element	Performance criteria
requirements	factors of the intended planting site by gathering all relevant information from the client 1.3 Use botanical and common names to describe plants
2. Select plants to suit specific situations	2.1 Identify plants and their growth and performance characteristics that suit the specific situation using research and experiential awareness 2.2 Compare, assess and evaluate available plants using sound problem-solving techniques 2.3 Determine the best choice based on reasoned argument, appropriate evidence, sound principles and customer needs
3. Advise on plants for specific situation	3.1 Explain performance characteristics and particular planting, cultural and maintenance requirements to the client 3.2 Refer to the original supplier of the plant where necessary 3.3 Respond to client requests for clarification or expansion by the use of attentive listening and questioning techniques 3.4 Record and report recommendations

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM401A Recommend plants and cultural practices.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPCM401 Recommend plants and cultural practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- conduct literature and industry research, collate and analyse findings on plant species and cultivars, their characteristics and requirements
- comply with legislative requirements
- explain to the client work health and safety requirements or basic safety precautions relevant to the establishment and on-going maintenance of plants
- document client preferences and site particulars
- select plants that suit client preferences and suitability for the site
- report recommendations to the client that detail the types of plants chosen and their requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for recommending plants and their cultural practices
 - customer service and communication skills
 - features of plant species and cultivars
 - innovation and recent practices in plant selection, use and performance
 - plant nomenclature (family, genus, species and cultivar) for the range of plants recommended by the enterprise
 - practical understanding of the physiology of the range of plants supplied and recommended by the enterprise and their comparative growth and performance characteristics in response to different cultural and environmental factors
 - principles and practices for the establishment and maintenance of plants

- soil characteristics, particularly in relation to the geographical and climatic region from which clients generally originate

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM402 Develop a soil health and plant nutrition program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a soil health and plant nutrition program.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plant culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1.Determine relevant regional data and site characteristics	1.1 Define goals and target site for assessment and development of program 1.2 Access and review relevant climate data, environmental context

Element	Performance criteria
	<p>information and site data</p> <p>1.3 Determine appropriate soil, plant and water tests, taking into account plant species, climatic conditions and prevailing growth media</p> <p>1.4 Develop a soil, plant and water testing program that defines sampling, field testing, off-site analysis activities, task responsibilities, involvement of contractors, scheduling and desired information outcomes</p> <p>1.5 Implement and monitor soil, plant and water testing tasks, supervise liaison procedures with outside testing agencies and take remedial action where necessary</p> <p>1.6 Compile data and readings and present in a form that can be easily understood</p> <p>1.7 Determine seasonal variations and requirements from published data on species, historical records and own experience</p> <p>1.8 Determine characteristics, condition and nutritional status of soils and plant species by analysing collected data and comparing to accepted standards</p>
2. Define the requirements for plant nutrition	<p>2.1 Identify different nutritional requirements of the plant during the growing cycle and growing conditions, using published data on species, historical records and own experience</p> <p>2.2 Develop program to achieve appropriate soil conditions and nutrient availability for plant growth</p> <p>2.3 Determine soil amendments, management practices and fertiliser requirements</p> <p>2.4 Identify and cost resources, tools, equipment and machinery required for program and confirm availability with suppliers, contractors and appropriate personnel</p> <p>2.5 Determine cost-effective approach to soil management, soil amendment and provision of plant nutrients</p> <p>2.6 Identify work health and safety hazards associated with program, assess risks and develop and document control measures</p> <p>2.7 Identify and document environmental implications of program</p>
3. Document the soil health and plant nutrition program and specifications	<p>3.1 Establish a detailed soil health and plant nutrition plan, objectives, specifications and associated costs based on program requirements</p> <p>3.2 Develop and document detailed on-site procedures and schedules required for program</p>
4. Monitor plant growth and evaluate the program	<p>4.1 Monitor program implementation and results by testing soil, plants and produce</p> <p>4.2 Review and refine program to ensure it is responsive to changing</p>

Element	Performance criteria
	<p>conditions</p> <p>4.3 Identify non-compliance with documented objectives and specifications and implement remedial actions to alleviate or overcome identified shortcomings in program</p> <p>4.4 Take remedial action to improve plant nutrition and document</p> <p>4.5 Incorporate agreed changes into a detailed plan</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM402A Develop a soil health and plant nutrition program.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHPCPM402 Develop a soil health and plant nutrition program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- access and analyse information on regional site factors
- assess the physical, chemical and biological characteristics of soils
- assess the physical, nutritional and health requirements of plants
- develop a soil, plant and water testing program
- develop a program to achieve appropriate soil conditions and nutrient availability for plant growth, incorporating a soil health and plant nutrition plan
- research and analyse findings on plant nutritional requirements, nutrients available from soils and other growth media, and environmental implications of program
- select suitable management practices, soil amendments, additives and fertilisers

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of soil health and plant nutrition
 - characteristics of soil and other growth media types, uses and additives to enhance available nutrition for specific plants
 - main simple and compound fertiliser products available to enterprise, including analysis, solubility, salt index, application rates and costs
 - methods of nutrient uptake by plants and favourable conditions for effective uptake to occur
 - nutrients and water required by plants grown within enterprise and effects of nutrient deficiency and toxicity on individual plant species and varieties
 - visual and other symptoms of nutrient deficiency and toxicity on individual plant species and varieties

- organic matter, pest and disease, and nutrient interactions in soil and nutrient cycling
- environmental issues associated with selecting nutritional materials, implementing a plant nutrition program, legislation compliance requirements and ensuring minimal impact on environment
- the following types of relationships between soil and growth media characteristics and availability of nutrients to plants: macro and micro elements
- the following types of site evaluation techniques: methods of sampling and analysing soils and other growth media
- soil amendments commonly required to treat soil problems experienced by enterprise

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM403 Implement an integrated pest management program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to implement an integrated pest management program.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plant culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess weed, pest and disease infestations	1.1 Identify symptoms of weed, pest and disease infestation in response to client needs

Element	Performance criteria
	1.2 Define weed, pest and disease relationships and vectors as key factors in program development 1.3 Assess size and scope of infestation 1.4 Assess business implications and urgency of action according to published data and enterprise policy 1.5 Report conditions likely to impact on business viability
2. Plan appropriate integrated treatments for weeds, pests and diseases	2.1 Develop an integrated pest management (IPM) program, ensuring treatments selected include chemical or non-chemical products in line with enterprise practice 2.2 Outline integrated application of treatments in planning documentation 2.3 Choose treatments which provide a suitable response to infestations, having regard to cost of damage, cost of infestation, marketing requirements, withholding periods and sustainable horticultural practices 2.4 Seek professional assistance as required
3. Implement weed, pest and disease control measures	3.1 Ensure control procedures reflect sound implementation of integrated pest management strategy, marketing objectives and business imperatives 3.2 Develop and implement monitoring procedures 3.3 Instruct and supervise others to carry out work according to the IPM plan 3.4 Monitor prevention program and undertake remedial action where necessary 3.5 Monitor control procedures and undertake remedial action where necessary

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPCM403 Implement an integrated pest management program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify symptoms of weed, pest and disease infestation
- develop an integrated pest management (IPM) program
- develop and implement monitoring procedures
- instruct and supervise others to carry out work according to the IPM plan
- oversee the implementation of an IPM pest management plan
- monitor costs of pest management plan to meet budget requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for integrated pest management
- application techniques for chemical and non-chemical treatments
- concept and principles of Integrated Pest Management
- cost/benefit analysis relevant to selection of weed, pest and disease control measures
- crop and plant scouting and monitoring
- ecological impacts of different control treatments
- integration of weed, pest and disease control measures
- lifecycles of hosts, predators and pests and diseases
- sustainable horticultural practices
- weeds and pests of specific horticultural enterprises

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM501 Diagnose plant health problems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to diagnose plant health problems.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor factors that influence plant health	1.1 Identify the plant species to the lowest taxonomic level and state its region of origin 1.2 Determine the seasonal growth stages of the plant

Element	Performance criteria
	<p>1.3 Record the day-to-day cultural practices used on each horticultural species</p> <p>1.4 Determine the characteristics of the growing environment that affect the growth of a specific plant species</p> <p>1.5 Record climatic data and environmental growing conditions</p> <p>1.6 Record the presence or numbers of beneficial organisms</p>
2. Diagnose plant health problems	<p>2.1 Identify environmental and cultural factors that predispose plants to attack by pests and diseases</p> <p>2.2 Identify the symptoms and signs of plant health problems using accepted nomenclature</p> <p>2.3 Assess the severity and extent of the problem in a plant species</p> <p>2.4 Compare observations with published data, historical records and own experience</p> <p>2.5 Determine the possible causes of the plant health problem</p> <p>2.6 Consult with specialist services in severe, complex or rapid onset cases</p> <p>2.7 Sample plant or soil specimens and dispatch for specialist diagnosis or laboratory testing where required</p> <p>2.8 Record plant disorders and problems and document in a report</p>
3. Remedy plant health problems	<p>3.1 Formulate a weed, pest and disease control program, taking into account the Integrated Pest Management (IPM) strategy and production plan</p> <p>3.2 Identify a range of modifications to growing conditions for a specific situation or plant species to rectify plant health problems</p> <p>3.3 Identify resources, tools, equipment and machinery required for work activities, analyse the costs and benefits and confirm availability with suppliers, contractors and appropriate personnel</p> <p>3.4 Identify work health and safety hazards associated with work activities, assess risks and implement controls</p>
4. Evaluate treatment program	<p>4.1 Monitor plants during treatment</p> <p>4.2 Record appropriate data</p> <p>4.3 Compare observations to expected results</p> <p>4.4 Recommend modifications to the treatment program are to client or management</p> <p>4.5 Present treatment program report to client or management</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM501A Diagnose plant health problems.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPM501 Diagnose plant health problems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research information about plant health problems, their diagnosis and remedial treatments
- differentiate between pest, disease and nutrient-associated symptoms
- identify signs and symptoms of plant health problems
- assess the severity, extent and speed of onset of health problems in a specific situation
- determine possible causes of the problem
- liaise with specialist services, clients and management
- formulate a weed, pest and disease control program
- implement treatment programs to remedy the diagnosed health problems
- evaluate treatment program and recommend modifications

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant health
 - chemical use, toxicity and compatibility with target plants, growth media, and environmental characteristics of the horticultural region
 - chemical, cultural and biological control methods included in the integrated pest management (IPM) strategy of the enterprise
 - enterprise and industry record keeping and reporting policies and requirements
 - evaluation procedures, including cost/benefit analysis, for plant and growth media treatments in relation to plant health, enterprise budget and performance targets
 - plant anatomy, morphology, physiology, histology, pathology, taxonomy and nomenclature

- plant nutrition issues associated with the growth media used and horticultural region for specific plant species
- sustainable horticultural practices relevant to the enterprise or horticultural region
- taxonomic descriptions, horticultural function, cultural and growth requirements, and target growth and performance characteristics of specific horticultural plants for the achievement of enterprise production and business plans
- weeds, pests and disease detection methods, taxonomic identification, life cycle stages and characteristic symptoms for the specific horticultural plants of the enterprise

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM502 Collect and classify plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect and identify plants using taxonomic keys.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for plant collecting	1.1 Confirm the purpose and objectives for collecting a range of plants 1.2 Define the area, location and habitat for collecting

Element	Performance criteria
	1.3 Determine and prepare resources to assist in locating and identifying plants 1.4 Determine and prepare equipment required for collecting and preserving specimens 1.5 Obtain licences or permission to collect specimens from landowner or managing agency 1.6 Assess the range of likely operating conditions, hazards and difficult or sensitive environments for impact on collecting and preserving specimens 1.7 Identify work health and safety hazards associated with plant collecting, assess risks and implement controls
2. Collect plant specimens	2.1 Observe collecting ethics when selecting specimens for picking 2.2 Enter into a field note book relevant information about the specimen, its characteristics and occurrence and note location coordinates 2.3 Confirm the specimen collected provides adequate material for identification and preserving 2.4 Tag and store specimens for later identification 2.5 Follow appropriate work health and safety requirements and work practices
3. Preserve specimens	3.1 Preserve specimen while still fresh 3.2 Clean and prepare specimen for preserving 3.3 Preserve specimen using either pressing or drying techniques 3.4 Mount dried specimen and label with information from notebook
4. Identify plant specimen	4.1 Use the relevant plant key to identify plant 4.2 Identify and document the basic characteristics of a plant 4.3 Confirm plant identity against botanical description of species 4.4 Document plant identity on label

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM502A Collect and classify plants.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPM502 Collect and classify plants

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for plant collecting
- note the location, characteristics and occurrence of specimens at the point of collection
- clean, preserve, mount and label specimens
- use a plant key to identify plants against the botanical description of the species

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant classification
 - herbarium collection techniques and ethics
 - physical and biological habitat types including vegetation associations and communities where appropriate
 - plant anatomy, physiology, morphology, taxonomy and nomenclature

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM503 Specify plants for landscapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to select and specify landscape plants in a range of industries to provide information and advice to a client or organisation.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a client brief	1.1 Discuss and clarify the needs and objectives of the client 1.2 Identify purposes of the landscape and the client's expectations

Element	Performance criteria
	1.3 Establish the criteria for plant selection 1.4 Consult with client to finalise agreement of the brief
2. Determine the suitability of a plant for a purpose	2.1 Inspect the site and determine the planting area 2.2 Select species and cultivars for the size and aspect and the site 2.3 Consider and apply environmental conditions to the functional characteristics of the plant 2.4 Determine the suitability of the soil for the plants selected 2.5 Evaluate the selection of the plant and document the rationale for plant selection
3. Select plants	3.1 Select plants as outlined in the client brief and according to their suitability for the intended purpose 3.2 Determine plant function for the precise location within the plan 3.3 Make recommendations for soil improvements for the selected plant species 3.4 Match species and cultivars appropriately to the determined selection criteria for species' specific characteristics 3.5 Identify plant species appropriate for the site 3.6 Research relevant reference sources 3.7 Recommend plant species or cultivars for replacement or new plantings 3.8 Document plant selections, selection criteria and notes on quality expectations as specifications
4. Specify plants	4.1 Evaluate selection criteria for mature plants against capability and availability of transplanted plants 4.2 Assess final selections against the specified soil, site location and client brief and confirm 4.3 Assess selected plants for quality and quantities outlined in the specifications 4.4 Check materials, soils and growing media for specified quality 4.5 Document records of quality checks on delivered plants and product
5. Correlate and present a report	5.1 Document a report of the process and incorporate the correlated records 5.2 Present the client or organisation with the report

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM503A Specify plants for landscapes.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCP503 Specify plants for landscapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a client brief on client's needs, objectives and expectations, the purpose of the landscape and plant selection criteria
- compile a database of plant specimens and characteristics
- conduct site inspections and site assessments
- evaluate and determine plant selections
- identify and select from a range of plants appropriate to the site
- research reference sources
- select and appraise soils and growing media
- use comparative techniques
- assess quality of plants and materials meet specifications

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of specifying plants for landscapes
 - basic physiology and life cycle of pests and diseases
 - botany, plant morphology, physiology, taxonomy and nomenclature
 - methods of data capture
 - plant identification techniques
 - soil characteristics particularly in relation to the local region
 - soils appraisal techniques
 - symptoms of plant pests and diseases

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM504 Design specialised landscape

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design a specialised landscape.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a design brief	1.1 Consult with client to establish the purpose and requirements of the design 1.2 Conduct a site inspection and note the physical elements and

Element	Performance criteria
	features of the site 1.3 Conduct a functional analysis of the site 1.4 Develop a design brief and consult with client to negotiate agreement
2. Design with plants as a main focus of the design project	2.1 Categorise plant families and genera, species and cultivars suitable for the design 2.2 Identify a wide range of plants for different design criteria and requirements, which include the use of aesthetic, ornamental, productive and economic plant groups 2.3 Determine and select plants appropriate to the design criteria 2.4 Use botanical nomenclature when documenting plants
3. Consider a range of factors that may influence the performance of the plants	3.1 Determine the implications of climate and environment on plant selection and design 3.2 Select plants that are adaptive to micro and meso climates in domestic, and small to moderate-scale public spaces 3.3 Report on the cultural techniques required to establish and maintain plants in specialised environments 3.4 Identify soil types and condition and make recommendations for appropriate soil management techniques 3.5 Identify organic and inorganic fertilisers and make appropriate recommendations 3.6 Identify common plant disorders and make appropriate recommendations
4. Develop specifications for the design	4.1 Incorporate instructions on the use and production of compost 4.2 Define the propagation techniques required 4.3 Outline the planting techniques to be used 4.4 Specify situations where staking and guying would be required 4.5 Define the required pruning and shaping techniques to be used 4.6 Outline the biological, organic and inorganic plant and plant pest management techniques to be used 4.7 Seek expert advice on irrigation requirements for the design 4.8 Develop a weed management plan 4.9 Document the design plan and present to client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM504A Design and maintain a specialised landscape.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPM504 Design specialised landscape

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- Develop a design brief in consultation with client to establish design purpose and requirements
- identify the implications of climate and environment on plant selection and design
- identify and design with plants appropriate for use in controlled environments
- identify and recommend soils and plant nutrition requirements
- identify and select plants appropriate to the design criterion
- use botanical nomenclature when selecting plants
- identify plant species and cultivars using botanical nomenclature
- identify weeds and recommend appropriate weed management
- Identify biological, organic and inorganic plant and plant pest management techniques to be used
- provide garden design solutions
- compile the recommendations and document a design plan or report

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of specialised landscape design
 - aesthetic, ornamental, productive and economic plant groups
 - allied horticultural, environmental and conservation industries and movements
 - botanical geography (plant families, geographic distribution and links)
 - botany - plant structures and physiology
 - ethno botany (sustainability and the stories of plants)

- horticultural media, information and knowledge-based resources
- how to determine suitability of plants for different environments such as green buildings (rooftops), conservatories, glass houses and atriums
- irrigation and current progress in new irrigation techniques
- plant families and detailed knowledge of species and cultivars used in garden design, horticulture industry and other ornamental, productive and economic plant industries
- plant taxonomy and nomenclature
- principles and processes of plant culture
- the use and development of plants through history
- turf culture
- types, properties and characteristics of a wide range of soils and growing media

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM505 Conduct environment and food safety risk assessment of plant nutrition and soil fertility programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to conduct an environment and food safety risk assessment on established or developing plant nutrition and soil fertility programs develop a nutrient management plan.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Maintain currency of	1.1 Research, identify and document community, government and

Element	Performance criteria
<p>environment and food safety information relating to fertilisers and soil ameliorants</p>	<p>agricultural industry concerns and legislative requirements in relation to fertiliser and soil ameliorant environmental stewardship and define initiatives to address them</p> <p>1.2 Identify and document local information relating to nutrient management, particularly in a catchment or regional context, by communicating with local organisations</p> <p>1.3 Research, identify and document national and local information and standards relating to food safety associated with fertiliser and soil ameliorant use</p> <p>1.4 Research, identify and document information and standards relating to transporting, handling, storing and applying fertilisers and soil ameliorants</p>
<p>2. Evaluate environmental risks and develop a nutrient management plan</p>	<p>2.1 Identify and document environmentally significant features of fertiliser, soil ameliorants, soil, landscape and climate that are likely to influence environmental risks associated with plant nutrition and soil fertility programs</p> <p>2.2 Identify and document agronomic and operational activities associated with fertiliser and soil ameliorant programs and associated environmental risk categories</p> <p>2.3 Evaluate and prioritise environmental risks and impacts associated with agronomic and operational activities</p> <p>2.4 Identify and evaluate management options to appropriately address environmental risks</p> <p>2.5 Develop a plant nutrition and soil fertility management plan and present to the land owner or manager</p> <p>2.6 Discuss appropriate management options to address any identified environmental risks with client and gain agreement</p> <p>2.7 Use nutrient management tools in conjunction with land owner or manager to monitor effectiveness of management decisions over time</p> <p>2.8 Identify opportunities to improve efficiency and effectiveness of plant nutrition and soil fertility program, including use of fertilisers and soil ameliorants and modify operational and agronomic recommendations accordingly</p>
<p>3. Identify and communicate relevant best practice in transport, handling and storage for environmental stewardship to land owner or manager</p>	<p>3.1 Identify key environmental product stewardship issues in transport, handling and storage of fertilisers and soil ameliorants relevant to the plant nutrition and soil fertility program as contained in codes of practice and legislation</p> <p>3.2 Develop a report on the identified key environmental stewardship issues and present to the land owner or manager</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM505A Conduct environment and food safety risk assessment of plant nutrition and soil fertility programs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHPCPM505 Conduct environment and food safety risk assessment of plant nutrition and soil fertility programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- Research, identify and document community, government and agricultural industry information, concerns and requirements in relation to fertiliser and soil ameliorant use and environmental stewardship
- Research, identify and document information and standards relating to transporting, handling, storing and applying fertilisers and soil ameliorants
- identify and evaluate probability and severity of identified environmental risks associated with plant nutrition and soil fertility programs
- calculate areas, ratios, proportions and application rates
- liaise with managers and landowners, local and national organisations
- develop a nutrient management plan
- monitor effectiveness of plant nutrition and soil fertility management decisions over time
- identify opportunities to improve efficiency and effectiveness of plant nutrition and soil fertility program
- estimate treatment and product requirements, material sizes and quantities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of food safety risk assessment
- environmental implications for environment of soil amendment and fertiliser use, that may include nutrient mining, run-off, nutrient loading of soil and water, toxicity, noise and dust
- food safety issues relating to the use of fertilisers and soil ameliorants
- law of the minimum and importance of nutrient interactions

- methods and pathways of nutrient uptake by plants and loss from soil
- nutrient cycling and its practical relevance to specific plants and soils encountered in local area, including role of soil biology
- nutrients required by plants grown within enterprise and effects of nutrient deficiency and toxicity on individual plant species and varieties
- relationship between soil characteristics and the availability of nutrients, including macro and micro elements, to plants
- single nutrient and complete fertiliser products encountered in local area, including physical attributes, nutrient analysis, solubility, salt index, application rates and costs, and appropriate application techniques and equipment
- soil amendments commonly used to treat local soil problems
- soil and water sampling techniques to adapt activities and instructions to a range of environmental contexts
- techniques for interpreting laboratory results and making fertiliser and amendment recommendations
- techniques to assess effects of fertiliser and amendment recommendations on soil, plants and water

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM506 Develop an integrated pest management program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to develop an integrated pest management program.

It applies to individuals who analyse information and exercise judgement to complete a range of activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plant culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine IPM strategy	1.1 Identify weed, pest and disease infestations considering enterprise requirements 1.2 Define weed, pest and disease relationships and any vectors as key factors in developing the integrated pest management (IPM)

Element	Performance criteria
	program 1.3 Develop a system to assess the size and extent of any infestation 1.4 Assess business implications and urgency of action according to published data, enterprise policy and/or economic threshold 1.5 Report conditions likely to impact on business viability 1.6 Determine the economic threshold for the crops grown
2. Design control measures for weeds, pests or diseases	2.1 Determine the appropriate method to control any weed, pest or disease issue that ensures limited impact on beneficial organisms and minimises the possibility of weeds, pests or diseases developing resistance 2.2 Develop strategies to ensure minimal or no risk of resistance developing in the range of weeds, pests or diseases identified 2.3 Ensure that control measures account for the damage threshold for the enterprise requirement or particular crop and to ensure the product still conforms to market access requirements 2.4 Develop a weed, pest or disease prevention program where possible to minimise, limit or remove certain risk factors
3. Develop monitoring requirements for weed, pest or disease control measures	3.1 Monitor prevention program and undertake remedial action where necessary 3.2 Ensure control procedures reflect sound implementation of integrated pest management strategy, marketing objectives and business imperatives 3.3 Monitor control procedures and undertake remedial action where necessary

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPCM506 Develop an integrated pest management program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine the economic threshold for a range of weed, pest or diseases
- develop an integrated pest management (IPM) strategy based on analysis of weed, pest or disease presence
- develop and implement monitoring procedures
- monitor costs of pest management plan to meet budget requirements
- oversee the implementation of an IPM pest management plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for developing integrated pest management plans
 - application techniques for chemical and non-chemical treatments
 - cost/benefit analysis relevant to selection of weed, pest and disease control measures
 - crop and plant scouting and monitoring
 - ecological impacts of different control treatments
 - interaction of weed, pest and disease control measures
 - weeds and pests of specific horticultural enterprises
 - lifecycles of hosts, predators and pests and diseases

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPCM601 Develop and implement a plant health management strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to gather information and advice on plant health and develop and implement a management strategy on plant health.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Plants culture and management (PCM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a plant health and management	1.1 Identify plant health issues from published data, historical records and industry consultation

Element	Performance criteria
program	1.2 Define management issues relative to desired quality, quantity and productivity requirements of marketing and production plans 1.3 Develop a program which defines enterprise guidelines and specific responsibilities of operational elements to achieve required outcomes 1.4 Establish systems to monitor business goals 1.5 Seek professional assistance where appropriate 1.6 Assess information to determine potential key information for input to planning decisions 1.7 Consider and document the environmental implications of chemical use, alternative methods and non-chemical preventative methods 1.8 Assess information to determine potential key information for input to planning decisions
2. Determine plant health strategies	2.1 Analyse gathered information for suitable approaches to plant health management 2.2 Consider strategies in the light of their impacts 2.3 Determine strategies for plant health management to integrate the most suitable methods with the proposed plants and the existing soil types 2.4 Establish environmental controls and include in the plan 2.5 Identify workplace health and safety hazards, assess risks and incorporate suitable controls into the plan
3. Provide input to other planning processes	3.1 Use details regarding plant health management strategies as input to other organisational planning processes 3.2 Collect and use information regarding other planning processes to inform the plant health management planning process 3.3 Communicate information about the range of planning processes verbally or in writing according to requirements and circumstances and the people involved
4. Determine scheduling and key responsibilities	4.1 Determine scheduling for plant health management, taking into consideration the range of seasonal, geographic, and resourcing factors 4.2 Determine key responsibilities for specific implementation processes 4.3 Determine record keeping requirements and put procedures in place to ensure compliance with the range of applicable regulations 4.4 Document the strategic plan, including scheduling and key responsibilities 4.5 Confirm the plan includes the type, format, frequency and detail

Element	Performance criteria
	of any reporting required by both managers and operators
5. Monitor and adjust plant health management strategies	5.1 Evaluate the effectiveness of the plant health management strategies at key points and make adjustments as necessary 5.2 Identify and monitor environmental impacts and workplace health and safety hazards relating to plant health management and assess and manage risks throughout the implementation process 5.3 Make modifications to the strategy as and when necessary for environmental, workplace health and safety, resourcing, or effectiveness reasons
6. Evaluate plant health management strategies and record result	6.1 Analyse data, observations and documentation from the implementation of the plant health management program against the plan, based on organisation guidelines 6.2 Prepare recommendations for future strategies based on the analysis of the data 6.3 Prepare a report that documents the implementation of the strategies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM601A Develop and implement a plant health management strategy.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHPCPM601 Develop and implement a plant health management strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine plant health strategies
- determine scheduling and key responsibilities
- develop plant health management strategies
- evaluate plant health management strategies and record results
- provide input to other planning processes
- monitor and adjust plant health management strategies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant health management
 - environmental controls and codes of practice applicable to the business and to plant health management operations
 - environmental controls and codes of practice applicable to the enterprise
 - Integrated Pest Management (IPM)
 - management of weed, pest and disease infestations
 - management practices and processes to minimise plant health management control operations
 - planning water budgets and irrigation strategies
 - plant growth and development and growth regulators
 - plant growth processes such as photosynthesis, respiration, nutrient uptake, solute transport and metabolism, water balance and osmotic pressure
 - strategic aspects of managing plant quality, performance and nutrition

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER101 Observe permaculture principles and work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to follow workplace directions and instructions while observing permaculture principles and practices.

Permaculture work can be carried out in the community, home, school and permaculture or community gardens and farms.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters. They identify and seek help with simple problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to work in a permaculture environment	1.1 Meet with supervisor, observe conditions and receive work tasks for the day 1.2 Identify required materials, tools and equipment 1.3 Check materials, tools and equipment and tell supervisor if there are insufficient or faulty items 1.4 Use correct manual handling techniques when loading and unloading materials 1.5 Identify hazards and tell supervisor 1.6 Use suitable personal protective equipment (PPE) and ensure correct fit
2. Identify permaculture work practices	2.1 Identify good environmentally sustainable practices, and seek clarification when necessary 2.2 Adopt work practices which maximise productivity and time efficiency and minimise waste and resource use 2.3 Follow instructions and directions and ask for clarification when necessary
3. Contribute to improved permaculture practices	3.1 Gather information about permaculture and support the development of improved permaculture practices 3.2 Discuss environmental issues, community issues and their relationship to permaculture practices with supervisor and colleagues 3.3 Contribute to the review of permaculture practices in a permaculture environment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD841PPP01B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER101 Observe permaculture principles and work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- communicate with supervisors and workplace colleagues
- recognise basic environmental influences
- contribute to improved permaculture work practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture
 - ethics – earth care, people care, fair share
 - principles – at this level, limited to the trainer/supervisor’s interpretation and simplification of those contained in the two seminal permaculture text books (Mollison 1988 and Holmgren 2002)
- good practice approaches to minimising environmental hazards and risks
 - producing no waste
 - thinking globally and acting locally
 - observing nature and learning from her patterns
 - responding to change creatively and with consideration for the needs of all users of and/or elements in the system
 - learning from mistakes and developing successes
- factors to improve environmental performance in regard to water catchments, ecosystems, habitat, efficient use of resources, sustainability and waste minimisation
- factors to improve community issues, especially in regard to caring for people, sharing surpluses and setting limits to growth

- environmental issues and their potential impacts
 - sustainability of land use and agricultural work practices
 - reduction and disposal of waste
 - improvements to water quality
 - improvements to air quality
 - energy efficiency
 - biodiversity and habitat protection
 - conservation of natural resources
 - wild-fire management and mitigation
 - food, water and energy security
 - human rights and right livelihood

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER102 Support resource conservation practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to support resource conservation practices in a permaculture system under supervision, including preparing materials, tools and equipment for resource conservation, undertaking resource conservation activities, storing and stockpiling materials, and cleaning up on completion of work.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters. They identify and seek help with simple problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for resource conservation	1.1 Identify and check the required materials, tools and equipment and prepare according to lists provided and/or supervisor's instructions

Element	Performance criteria
	1.2 Adopt work practices which maximise productivity and time efficiency and minimise waste and resource use 1.3 Follow instructions and directions provided by supervisor and seek clarification when necessary
2. Undertake resource conservation practices as directed	2.1 Gather information on resource conservation in a permaculture system 2.2 Carry out resource conservation work in a safe and environmentally appropriate manner 2.3 Observe workplace policy and procedures in relation to workplace practice, handling, re-use and disposal of materials 2.4 Report problems or difficulties in completing work to required standards or timelines
3. Store and stockpile materials	3.1 Store all usable and re-usable materials in a designated area 3.2 Prepare and process all usable and re-usable materials
4. Clean up on completion of resource conservation work	4.1 Clean, maintain and store tools and equipment 4.2 Maintain a clean and safe work site while completing resource conservation activities 4.3 Complete any reporting requirements at the end of the job

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD841RES02B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER102 Support resource conservation practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- cooperate with team members
- store and stockpile materials
- clean up on completion of work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices
- tools and equipment used
- principles of resource conservation including:
 - reduce, reuse, recycle, repair, repurpose, restore
 - minimal impact living
 - sustainable food production
 - energy efficiency
 - the following types of appropriate energy: solar and wind power
 - the following types of appropriate technology: composting toilets, grey water re-use
 - water catchment, storage and re-use
 - seed collection and seed banking
 - mulching and soil conservation
 - revegetation
- community and social interaction and support, such as:
 - resource banking

- seed banking
- co-operatives
- Local Energy Trading Systems (LETS)
- Skill-Share
- techniques used in resource conservation, such as:
 - stock piling resources
 - the following types of processing requirements for resources which cannot be stock-piled: composting, fermentation, drying
 - water storage and treatment
 - capture and storage of energy (heat capture in mass, basic turbine function)
- making connections between everyday living and sustainable use of resources

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER103 Support plant care in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to support plant care in a permaculture system.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters. They identify and seek help with simple problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify common features of Zone 1 permaculture gardens	1.1 Identify key characteristics of a Zone 1 permaculture garden 1.2 Compare and contrast common features of Zone 1 permaculture gardens with traditional home gardens 1.3 Identify functions and yields of plants in a Zone 1 permaculture garden

Element	Performance criteria
2. Demonstrate safe and efficient work practices	2.1 Identify and check the required materials, tools and equipment and prepare according to lists provided and/or supervisor's instructions 2.2 Adopt work practices which maximise productivity and time efficiency and minimise waste and resource use 2.3 Follow plant care instructions and directions provided by supervisor and seek clarification when necessary
3. Undertake bed preparation and planting activities	3.1 Prepare beds for planting of plants, seeds or seedlings 3.2 Plant the plants, seeds or seedlings 3.3 Follow instructions in relation to workplace practices, handling and disposal of materials 3.4 Report problems or difficulties in completing work to required standards or timelines to supervisor
4. Maintain plants	4.1 Determine watering regime for different plants in conjunction with supervisor 4.2 Determine nutrient requirements for plants in conjunction with supervisor 4.3 Clarify additional requirements of different plants in conjunction with supervisor
5. Harvest plants and plant yields	5.1 Identify potential yields from different species to be harvested 5.2 Harvest plants and plant yields 5.3 Store plants and plant yields 5.4 Complete any reporting requirements at the end of the job

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD841IPA03B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER103 Support plant care in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- Identify common features of permaculture Zone 1 gardens
- identify and check the required materials, tools and equipment
- prepare a garden area for planting plants, seeds or seedlings
- determine the appropriate watering regime and nutrient requirements for the plantings
- harvest plant yields
- store the plant yields

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the characteristics of permaculture Zone 1 gardens
 - how permaculture gardens differ from conventional gardens
 - functions and yields of plants in a Zone 1 garden
 - observing nature and learning from it
- principles of planting in permaculture systems, such as:
 - aspect
 - planting patterns
 - companion planting
 - the soil-water-plant relationship
- plant care techniques and plant nutrition, such as:
 - the role of composts, worm castings, green manures, animal manures and support species in permaculture plant care
 - when to leave weeds, chop-and-drop and mulching

- simple pest protection (cages, rings, stakes and nets)
- simple climate protection (sun/frost/wind)
- how to reuse and recycle excess products of plant care

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III qualification (or higher) in Permaculture and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER104 Support animal care in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to support animal care in a permaculture system.

All work is carried out to comply with permaculture principles and workplace procedures.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters. They identify and seek help with simple problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment	1.1 Identify and check the required materials, tools and equipment for animal care according to lists provided or supervisor's

Element	Performance criteria
	instructions 1.2 Check all materials, tools and equipment 1.3 Adopt work practices which maximise productivity and time efficiency and minimise waste and resource use 1.4 Identify hazards and follow instructions and directions provided by supervisor, seeking clarification when necessary
2. Undertake animal care as directed	2.1 Determine requirements of animals under care 2.2 Undertake work with animals in a safe and environmentally appropriate manner 2.3 Identify yields from animals in the permaculture system 2.4 Observe basic indicators of animal health and report any problems to supervisor 2.5 Report any problems or difficulties in completing work to required standards or timelines to supervisor
3. Collect and store yields from animals	3.1 Collect and store yields from animals and waste material produced during work in a designated area 3.2 Handle and transport materials, equipment and machinery 3.3 Maintain a clean and safe work site while working
4. Complete animal care work	4.1 Return materials to store 4.2 Clean, maintain and store tools and equipment 4.3 Report work outcomes to the supervisor 4.4 Complete any reporting requirements at the end of the job

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD841IPA04B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER104 Support animal care in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply problem solving skills to use available resources and prioritise daily tasks
- collect yields from animals including waste materials for composting or worm farms
- clean up on completion of work
- identify basic indicators of animal health

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles of animal care in permaculture systems, such as:
 - grazing systems
 - animal tractor systems
 - organic feed and nutrition systems
 - housing and species combinations for welfare of all species
 - predator protection, vermin control and weather protection
- principles of integrating animals into permaculture systems, such as:
 - zone and sector planning in relation to appropriate animal species
 - needs, functions and yields for animals within integrated systems
- the following components of animal care: feed, water, shelter, perch space, bedding, symptoms of ill health or stress
- animal handling techniques
- tools and equipment
- repair and maintenance of animal housing and containment

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III qualification (or higher) in Permaculture and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER105 Assist with maintaining structures in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist with maintaining structures in a permaculture system.

All work is carried out to comply with permaculture principles and workplace procedures.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters. They identify and seek help with simple problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools	1.1 Identify and check the required materials, tools and equipment

Element	Performance criteria
and equipment for maintenance work	and prepare according to lists provided and/or supervisor's instructions 1.2 Adopt work practices which maximise productivity and time efficiency and minimise waste and resource use 1.3 Follow structure maintenance instructions and directions provided by supervisor and seek clarification when necessary
2. Undertake repairs and maintenance of structures	2.1 Gather information on the permaculture structure requiring maintenance 2.2 Work on the structure as instructed and according to permaculture work principles 2.3 Report any problems or difficulties and seek clarification where necessary
3. Apply finishes and ensure safety of fixings	3.1 Apply finishes if required 3.2 Ensure fixings such as gate closure mechanisms are safe for all users 3.3 Check the maintained structure to ensure the work is satisfactory
4. Clean up on completion of work	4.1 Return any materials, tools and equipment to the storage area 4.2 Leave the work area tidy and safe 4.3 Complete any reporting requirements at the end of the job

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER105 Assist with maintaining structures in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for maintenance work
- maintain permaculture structures
- clean up on completion of work
- carry out reporting requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to structures in a permaculture system
- tools and equipment used
- permaculture structures, such as:
 - fences
 - gates
 - animal housing and enclosure
 - animal feeders and waterers
 - plant protection
 - light reflection and exclusion structures
 - seating
 - ponds, wicking systems and rain gardens
 - storage structures for materials
 - compost systems
 - water storage structures

- water harvesting and distribution structures
- propagation systems
- fireplaces and fire pits
- root cellars
- bee hives
- structural and safety issues associated with maintaining structures
- environmentally safe finishes and materials
- principles of repurposing and reuse of materials
- creative solutions to common and simple problems with permaculture structures

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III qualification (or higher) in Permaculture and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER201 Work effectively in permaculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to work effectively on an individual basis and with others in permaculture.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Obtain information about permaculture	1.1 Identify and access sources of information about permaculture 1.2 Collect information to assist effective and safe work performance within a permaculture work site 1.3 Identify workplace terms and conditions 1.4 Identify work and career options for permaculture practice

Element	Performance criteria
2. Observe requirements of a permaculture workplace	2.1 Ensure work practices comply with enterprise work requirements 2.2 Recognise faults and abnormalities in workplace practices and take remedial action 2.3 Observe punctuality in work attendance 2.4 Complete work routines and specific instructions to meet workplace expectations
3. Work effectively in a permaculture workplace	3.1 Plan work tasks in consultation with team members and supervisor 3.2 Follow instructions from supervisor 3.3 Cooperate with others as part of a team with consideration of special needs of co-workers and others 3.4 Accept responsibility for quality of own work
4. Contribute to a productive permaculture workplace	4.1 Fulfil commitments to undertake work or assist co-workers 4.2 Share knowledge and skills with co-workers through conversations and demonstrations 4.3 Recognise and seek out contributions from individuals of different gender and social and cultural backgrounds, if appropriate 4.4 Ensure work is consistent with workplace standards relating to anti-discrimination and workplace harassment 4.5 Recognise and resolve conflict through personal communication if possible and reference to supervisor for support 4.6 Undertake responsibilities and duties so as to promote cooperation and good workplace relationships

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD842PPP01B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER201 Work effectively in permaculture

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- access and collect information about permaculture
- interpret workplace schedules
- accept responsibility for own work
- promote workplace cooperation
- contribute to a productive workplace environment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture
 - different sectors within a permaculture system
 - relationships between sectors and the whole
 - permaculture services available in the area as listed in available references including:
 - media reports
 - reference books
 - industry journals
 - internet sites
 - libraries
 - observation of nature
 - personal observation and experience
 - relationships between the permaculture enterprise and other industries
 - legislation that affects permaculture enterprises

- unions and industry associations
- career opportunities within permaculture
- work ethic required to work in permaculture enterprises
- ethics of permaculture
 - care for the earth
 - care for all people
 - sharing the surplus
 - setting limits to growth
- permaculture practices and procedures, such as:
 - cooperation over competition
 - respecting and celebrating all ethnicities, religions, ages, genders and abilities
- wwoofing and other labour exchange programs
- lifestyle as a conserver
- workplace expectations and communication channels

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER202 Harvest, treat and store seed

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to harvest, treat and store seed.

All work is carried out to comply with workplace requirements.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for harvesting of seed	1.1 Discuss work requirements with supervisor and seek clarification where necessary

Element	Performance criteria
	1.2 Clean seed harvesting and handling equipment and transport to seed collecting site 1.3 Determine seed that is to be collected 1.4 Prepare locations for treatment and storage of seed
2. Harvest seed	2.1 Collect seed using selected method complying with any conditions of permit or agreements with land holders, if applicable 2.2 Protect the health of parent plants during seed collection, if required 2.3 Place seed in clean containers and label
3. Treat and store seed	3.1 Separate seeds from other materials using available separation methods 3.2 Treat seeds, if required, according to harvesting plan 3.3 Record all appropriate data regarding collected seed on the seed container according to the harvesting plan 3.4 Pack and store seeds

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD842RES02B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER202 Harvest, treat and store seed

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare to harvest seed
- harvest seed
- treat and store seed

Knowledge Evidence

The candidate must demonstrate knowledge of:

- seed harvesting techniques
- characteristics of mature healthy seed
- diseases and pests likely to affect the seed
- the following types of seed extraction:
 - hand selection
 - winnowing
 - sieving
 - vibration
 - flotation and fermentation
 - drying
 - heat-assisted dehiscing
 - crumbling of husks
- the following permaculture practices relating to seed harvesting and storage:
 - appropriate containers including re-used jars, boxes and packets
 - cool, dry location

- freezer or refrigerator
- pest deterrent mechanisms
- light exclusion mechanisms
- non-chemical protection against pathogens
- the following data included in seed saving:
 - genus, species, family, variety and cultivar information
 - provenance – where the seed came from
 - weight or number
 - date collected
 - place collected
 - collector
 - cultural advice or growing conditions
 - seed pre-treatment advice
 - longevity information
 - growing-out trial information
 - storage location information or record locator

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER203 Record information about the local bioregion

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to record information about the local bioregion.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Discuss work requirements with supervisor and seek clarification where necessary 1.2 Identify materials required for the work and collect and prepare them
2. Collect information	2.1 Determine the boundaries and extent of bioregion according to

Element	Performance criteria
	<p>community and geophysical and biological guidelines</p> <p>2.2 Identify key plant and animal species of the ecosystem by local or common name</p> <p>2.3 Identify special features and sites of the bioregion and relate to ecological information</p> <p>2.4 Investigate knowledge on plants and animals relationships from a permaculture perspective</p> <p>2.5 Investigate information on land uses and land management practices in the bioregion</p> <p>2.6 Outline the history of bioregion from community sources and available literature</p> <p>2.7 Define simple food chains and energy flows relevant to the local bioregion</p>
3. Review changes	<p>3.1 Identify environmental changes from land use and the impacts of these changes on current and future land uses</p> <p>3.2 Document environmental trends and their potential impacts on the bioregion</p> <p>3.3 Record land and water management practices that can repair environmental changes</p>
4. Document information	<p>4.1 Document information about the local bioregion</p> <p>4.2 Recognise and record ownership of information used in an appropriate manner</p> <p>4.3 Document any conditions and parameters defining use of information</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD842BIO03B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER203 Record information about the local bioregion

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect information about the local bioregion
- review the information
- document the information

Knowledge Evidence

The candidate must demonstrate knowledge of:

- designated areas and features of a bioregion, such as:
 - a bioregion, as a land and water territory whose limits are defined not by political boundaries, but by the geographical limits of human communities and ecological systems.
 - water catchment, as one of the key identifiers of the bioregion
 - the vegetation on the catchment, as also an essential feature of a bioregion
- local and common names for plants and animals
- ecological concepts, such as:
 - niche
 - habitat
 - community
 - ecosystem
 - energy flows
 - food webs/chains
 - water cycles
 - species and species relationships

- plant and animal succession
- Permaculture perspectives, such as:
 - seeing connections between elements in a system
 - supporting ecological and community co-existence
 - valuing renewable resources and energy
- alternative strategies of trade such as barter and local exchange trading systems (LETS)
- community resources including local skills, public transport options, contractors and facilities

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER204 Check and operate permaculture water systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to check and operate permaculture water systems.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for working with permaculture	1.1 Discuss work requirements with supervisor and seek clarification where necessary

Element	Performance criteria
water systems	1.2 Assess requirements for water and natural water flows 1.3 Conduct checks on tools and equipment to be used 1.4 Prepare materials required for water systems work
2. Set up water systems equipment	2.1 Handle water systems equipment 2.2 Position water systems equipment 2.3 Check pumps, bores and other water delivery mechanisms and report any issues 2.4 Position and secure water control devices
3. Carry out water systems operations	3.1 Operate water systems as required 3.2 Check required head and water levels are achieved and maintained in active systems to ensure sufficient water flow 3.3 Monitor progress of water flow in passive systems 3.4 Carry out water system changes and record 3.5 Shift water system equipment
4. Clean and store water system equipment	4.1 Clean equipment and prepare for storage 4.2 Load equipment for transport 4.3 Store equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD842WAT04B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER204 Check and operate permaculture water systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare to set up a permaculture water system
- set up water systems
- monitor water flows
- place system components in a way that gives most effect and greatest yield
- inspect earthworks for passive water catchment, storage and movement

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices in relation to water systems
- behaviour of water in the natural environment
- reading natural water flows
- operation of permaculture water systems, such as:
 - irrigation systems
 - water collection and storage containers (tanks, dams)
 - recycling
 - waste-water systems
 - water conservation approaches
 - swales
 - contour banks
 - mulch pit and path systems
 - dams

- chinampas
- free-flowing water (streams, rivers)
- aquaculture systems
- aquaponics systems
- productive water bodies (lakes, the sea)
- earthworks for passive water catchment, storage and yield
- components of a water system and their cleaning and storage requirements
- water conservation and management principles and practices including working with passive systems, swales, terraces, dams and other earthworks
- passive harvesting, movement and nutrient adding systems including appropriate earthworks
- biological filtering of water into and out of a permaculture water system

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER205 Prepare and store permaculture products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out routine preparation and storage of products on a permaculture property. It covers the grading, labelling, treatment and storage of harvested products.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for working with permaculture	1.1 Select materials, tools, equipment and machinery

Element	Performance criteria
products	1.2 Conduct check on tools, equipment and machinery 1.3 Identify products to be prepared and stored
2. Transport harvested products	2.1 Handle products and their containers safely 2.2 Transport products with care to preparation area 2.3 Ensure containers are maintained in good condition
3. Grade, label and treat products	3.1 Grade and label harvested products 3.2 Identify products that do not meet the standards and dispose of them 3.3 Apply treatments to products within permaculture guidelines 3.4 Clean and maintain tools, equipment and machinery used in product treatment
4. Pack products	4.1 Identify and confirm packaging materials, containers, filling techniques and labelling requirements with supervisor 4.2 Select packaging materials and container for the product 4.3 Use filling techniques for specific containers and products
5. Store products	5.1 Transport products and arrange in the storage facility 5.2 Check the condition of stored products 5.3 Remove damaged products and containers from the storage facility and repair or re-pack if possible 5.4 Clean the storage facility and packing containers

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD842RES05B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER205 Prepare and store permaculture products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- handle products and their containers safely
- maintain containers in good condition
- maintain product storage areas and containers
- grade and label products
- pack and store products
- check stored products for damage, repacking or other treatments

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices in relation to product preparation and storage, such as:
 - the range of products produced by permaculture enterprises and their yields
 - parts of products stored
 - preserving the harvest
- correct handling, preparation and treatment techniques for a range of products, such as:
 - observation and identification of harvest readiness
 - storage methods for different products
 - pests and diseases likely to affect storage
 - hygiene issues in the handling and storage of permaculture products

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER206 Plant and maintain permaculture crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plant and maintain plants in a permaculture cropping system under routine supervision and involves a range of planting tasks, including site preparation, the handling and planting of a range of planting materials, and the maintenance of crops in the field.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to plant permaculture crops	1.1 Confirm instructions about planting with supervisor 1.2 Select and prepare tools and equipment 1.3 Identify plant materials to be planted 1.4 Select, use and maintain personal protective equipment
2. Prepare the site for planting	2.1 Remove or slash old plants, weeds and other residual materials if required 2.2 Apply soil treatments or amendments according to supervisor's instructions 2.3 Implement plant protection 2.4 Follow the permaculture planting plan and mark out the planting pattern
3. Carry out planting operations	3.1 Select appropriate planting material 3.2 Maintain planting material under conditions that ensure maximum viability 3.3 Handle and transport planting material to the site 3.4 Carry out planting according to permaculture planting plan
4. Maintain plants	4.1 Apply treatments to plantings according to the permaculture plan 4.2 Water plantings according to the irrigation schedule 4.3 Train and protect plants according to the permaculture plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD842IPA06B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER206 Plant and maintain permaculture crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select plant material, tools and equipment for planting
- prepare site for planting
- plant according to permaculture planting plan or pattern
- support, train, guard or protect plants
- follow plans and schedules
- water plantings
- apply treatments to soil

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to planting operations, such as:
 - planting in natural groupings or guilds
 - utilising plant partnerships such as vines on corn crops
 - planting mixed species and interplanting with companion species
 - avoiding soil compaction or disturbance
 - utilising chickens to plough and prepare ground for planting
 - avoiding water, seed or weed leakages from the system
- principles of sustainable horticultural practices
- planting techniques
- basic plant nutrition
- soil improvement and nutrient maintenance, such as:
 - minerals, including rock dusts

- organic matter
- manures, appropriate fertilisers and composts
- foliar feeds or fertigation
- vermicompost and worm castings
- planting of a temporary green manure or cover crop
- legume plantings or interplantings
- sheet mulches
- companion planting
- plant growth and development
- methods of waste disposal causing minimal impact on the environment

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER207 Care for animals in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to care for the health and welfare of animals in a permaculture system through providing the optimal environment for them, caring for animals common in permaculture systems, animal behaviour and handling and maintaining basic records. This unit is applicable to both farm animals and companion animals.

All work is carried out to comply with workplace procedures, including animal welfare, quarantine and work health and safety policies and procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to

Element	Performance criteria
essential outcomes.	demonstrate achievement of the element.
1. Monitor and assess animal health and welfare	1.1 Check animals regularly 1.2 Recognise and report symptoms of ill health, common diseases or parasite infestations in animals 1.3 Remove and dispose of any dead animals
2. Provide an optimal environment for animals	2.1 Assess animal's needs in conjunction with work team and supervisor 2.2 Install equipment and housing 2.3 Monitor welfare of animals and report any issues
3. Establish and maintain quality of animal housing	3.1 Follow health and safety procedures, practices, policies and precautions, including the use of personal protective equipment 3.2 Maintain cleanliness and hygiene of animal housing 3.3 Follow any quarantine procedures as instructed by supervisor 3.4 Maintain personal hygiene in all animal handling activities 3.5 Dismantle and clean equipment and correctly replace fittings 3.6 Control pest and vermin when necessary 3.7 Dispose of all waste and debris, and deal with run off 3.8 Conduct routine disease or parasite infestation prevention procedures
4. Implement and record control strategies	4.1 Report any disease incidence or animal losses to the supervisor 4.2 Implement preventative strategies and quarantine measures as instructed by the supervisor 4.3 Maintain and enter records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD842IPA07B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER207 Care for animals in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess animal health and welfare
- provide an optimal environment for animals
- feed and water animals
- handle animals safely and humanely
- move animals to different housing or pastures when necessary
- implement and record animal health and welfare control strategies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to animal care in a permaculture system
- animals common to permaculture systems in a given region or system
- role or niche of animals in system and interrelationship with other animals, plants or systems
- principles of animal feeding and nutrition
- principles of animal health, welfare and care
- symptoms of ill-health in animals
- legislation and regulations relating to animal health and welfare
- signs of animal fear, aggression and stress
- handling of animals
- safe handling of sick and dead animals

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER208 Harvest permaculture crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit provides the skills and knowledge required to harvest permaculture crops. It requires knowledge of common crops used in permaculture systems, recognition of the maturity parameters of crops, grading characteristics, maintaining quality of produce, and the effect of adverse weather conditions.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Assess plants for harvest	1.1 Identify crops to be harvested according to the harvesting plan 1.2 Determine crop maturity 1.3 Confirm conditions are right for harvesting
2. Prepare equipment for harvesting	2.1 Select tools, equipment and machinery appropriate to the task being undertaken 2.2 Carry out pre-operational and safety checks on tools, equipment and machinery according to manufacturer specifications 2.3 Select, use and maintain suitable personal protective equipment (PPE)
3. Harvest the crop	3.1 Harvest the crop carefully and safely 3.2 Sort and grade the crop as needed 3.3 Clean and maintain harvesting tools, equipment and machinery
4. Complete crop harvesting work	4.1 Employ safe manual handling techniques when handling containers 4.2 Move and stack containers in such a way as to minimise damage to the crop 4.3 Maintain temperature of the crop at the levels set by the harvesting plan 4.4 Transport crop from the field to the processing or storage area 4.5 Maintain containers in good working order

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD842IPA08B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER208 Harvest permaculture crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess plants for harvest
- prepare for harvest
- carry out harvest operations
- maintain harvesting equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles related to harvesting
- principles of sustainable horticultural practices
- crops common in permaculture systems
- harvesting techniques, such as:
 - selective picking or hand picking ripe from unripe
 - tree shaking
 - picking leaves rather than whole plants
 - cutting plants and allowing to regrow (eg leeks, spring onions)
 - thinning or removing weak or diseased plants from among healthy ones
 - end of season crop extension harvesting (such as hanging tomato plants to ripen indoors)
- equipment and machinery used in harvesting
- sorting and grading, such as:
 - removing out-of-type plants
 - removing physically damaged, unhealthy, rotten or immature fruit and vegetables

- grading of the crop according to variety, size, length, colour, maturity, blemishes, bud count and quality, being subject to seasonal and market forces
- storage, transportation and grading of crops
- methods of waste disposal causing minimal impact on the environment

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER209 Recognise characteristics of integrated plant and animal systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recognise integrated plant and animal systems and their roles in permaculture design.

All work is carried out to comply with workplace procedures, including animal welfare, quarantine and work health and safety policies and procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Recognise plants and animals	1.1 Describe plant and animal habits, plant characteristics, animal characteristics and significant features and record appropriately 1.2 Recognise and name plants and animals used in permaculture systems according to their identifiable characteristics 1.3 Describe interconnectedness of plants and animals in permaculture systems using permaculture principles and practices
2. Describe functions of integrated systems in permaculture	2.1 Describe inputs, outputs and intrinsic features of plants and animals in integrated permaculture systems 2.2 Describe functions of integrated systems using a permaculture plan 2.3 Maintain records on integrated plant and animal systems

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD842IPA09B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER209 Recognise characteristics of integrated plant and animal systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- recognise animals and plants
- name animals and plants by common name
- read a permaculture plan
- identify plants and animals commonly encountered in a permaculture system
- identify plants with useful properties (food, fuel, fibre, medicinal, dyes, shade, habitat etc)
- describe animals with functions in the system
- produce a simple report

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to integrated plant and animal systems, such as:
 - practices which conserve energy and resources
 - protecting water, soil and other resources
 - obtaining a yield
 - preserving heritage or heirloom varieties (biodiversity)
 - re-using or adapting materials for other functions
 - making use of vertical space
 - creating multiple functions for the same thing
 - using nature as the model
 - seed-saving
- animals and plants common to permaculture systems in a given region or bioregion

- the role or niche of animals in system and interrelationship with other animals, plants or systems, such as:
 - native or wild animals and plants
 - pest and feral plants and animals
 - insects, fish, birds and reptiles, both friend and foe
- principles relating to integrated plant and animal systems

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER210 Operate within community projects

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate within community projects including the ability to gather information about communities and social structures, cultural customs and heritage of indigenous or other minority groups, and reading project plans and programs.

All work is carried out to comply with workplace procedures, including animal welfare, quarantine and work health and safety policies and procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Gather information about the community and community projects	1.1 Research major characteristics of the community 1.2 Identify features and impact of community projects 1.3 Define local land ownership, use and management issues 1.4 Determine community traditions and customs 1.5 Define main issues and trends impacting on community 1.6 Determine relationship of community project with a permaculture system or community
2. Assist in project preparation	2.1 Participate in community consultation 2.2 Obtain tools, equipment and resources for project and prepare for use 2.3 confirm work schedules and programs with supervisor 2.4 Identify any issues relating to project completion with supervisor and address these while planning
3. Work within a community project	3.1 Observe community protocols according to community or organisational guidelines and work procedures 3.2 Respect community traditions and customs and reflect in organisational work procedures 3.3 Complete project work on schedule and in cooperation with community

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD842COM10B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER210 Operate within community projects

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- gather information about a community and community projects, including major characteristics, features and impacts of community projects
- research the community
- assist in project preparation
- work within a community project

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to community work
- issues important to communities, such as:
 - health
 - housing
 - land rights
 - schooling and education levels
 - economics
 - town planning
 - transport
 - leisure activities
 - employment
- communities and social structures and characteristics, such as:
 - living arrangements

- patterns of daily life
- roles of men, women and children, class structures
- predominant language used
- main economic activities
- main transport systems used
- main information systems used
- predominant religion or spiritual beliefs
- main system of law and order
- main type of government
- main social upheavals experienced over specified periods of time
- main problems experienced by the society over specified periods of time
- cultural customs and heritage of indigenous or other minority groups
- cultural protocols, such as:
 - recognition of authority
 - taboos
 - religious or other belief sensitivities
 - economic sensitivities
 - issues of trust
- project plans and programs

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER211 Recognise threats and create opportunities in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recognise and minimise threats and create opportunities in a permaculture system using observation, permaculture practices and cultural, biological and other appropriate methods.

All work is carried out to comply with workplace procedures, including animal welfare, quarantine and work health and safety policies and procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Assess threats to permaculture system	1.1 Recognise plant pests, diseases and disorders 1.2 Identify threats from weather conditions and extreme weather events 1.3 Determine other environmental situations that may impact on permaculture systems 1.4 Identify interrelationships between weedy plants, pests, diseases or disorders and weather or environmental conditions 1.5 Record details of threat occurrences and report to the supervisor 1.6 Recognise treatment or response methods, or opportunities, in consultation with the supervisor 1.7 Identify hazards, assess risks and report to the supervisor
2. Apply treatments to reduce impact of threats	2.1 Select tools and materials for the job 2.2 Prepare treatments or responses to threats or consider opportunities according to supervisor's instructions 2.3 Apply treatments
3. Carry out post-treatment operations	3.1 Carry out post-treatment operations 3.2 Treat, recycle or dispose of waste materials 3.3 Maintain records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD842IPA11B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER211 Recognise threats and create opportunities in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- recognise plant pests, diseases and disorders
- identify interrelationships between weedy plants, pests, diseases or disorders and weather or environmental conditions
- recognise treatment or response methods, or opportunities
- prepare and apply treatments or responses to threats

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices in regard to plant protection, such as:
 - creative solutions to common problems in a permaculture system
 - design for improved predator-pest balance
 - integrated plant and animal systems
 - guilds of planting for mutual support
 - mineral contribution of weeds to soil (bioaccumulation)
 - using pest-weed cycles to advantage (breaking the insect reproductive cycle for example)
- common weedy plants, plant pests, diseases and disorders
- common environmental impacts on permaculture systems
- fire, flood, storm and tsunami behaviours and precautions relevant to permaculture design
- different types of treatments or system modifications and their principles, such as:
 - non-chemical controls including sprays with organic or natural ingredients
 - cultural control methods

- animal systems to control plants or plant residues (chicken or pig tractors)
- shade used as a control
- biodynamic treatments and control measures
- sheet mulching
- composting of residues
- follow-up strategies including spot mulching, seedling disturbance, animals
- environmental considerations when applying treatments

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER212 Use and maintain garden hand tools and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to use and maintain garden hand tools and equipment. It requires knowledge of the correct purpose and function of garden hand tools and equipment and their maintenance needs.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and describe	1.1 Correctly identify garden hand tools and equipment

Element	Performance criteria
uses of tools	1.2 Describe the correct purpose of each tool and how to use it correctly 1.3 Describe the maintenance and storage requirements for the tools
2. Use tools for their designed purpose	2.1 Ensure safe work practices are complied with 2.2 Undertake tasks using garden hand tools and equipment correctly 2.3 Return tools used to the storage area and stow correctly
3. Clean, maintain and store garden hand tools and equipment	3.1 Identify tools that need repairs or maintenance 3.2 Undertake regular tool maintenance tasks 3.3 Store garden hand tools and equipment properly to ensure long service

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER212 Use and maintain garden hand tools and equipment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- describe uses of tools and equipment
- use a range of garden hand tools and equipment properly
- clean, maintain and store garden hand tools and equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to garden tool use and maintenance
- principles of sustainable horticultural practices
- ergonomics
- garden hand tools and equipment used in permaculture systems, such as:
 - spades and shovels
 - forks
 - trowels
 - rakes
 - scythes and sickles
 - hand mowers
 - secateurs & loppers
 - picks & mattocks
 - pruning saws and bow saws
 - club hammer and sledge hammer
- maintaining tools and equipment in good condition, such as:

- replacing dulled blades
- replacing broken handles
- lubricating moving parts
- adjusting mechanisms
- sharpening and honing blades
- storage techniques for hand tools and equipment
- carrying and transporting hand tools and equipment safely

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER213 Assist with basic earth shaping for nutrient capture and storage

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist with basic earth shaping for nutrient capture and storage in a permaculture system. It requires knowledge of permaculture earthworks used for nutrient capture and storage, behaviour of water in the natural environment, reading the landscape, working with slopes and contours and digging techniques, both manual and mechanical.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to

Element	Performance criteria
essential outcomes.	demonstrate achievement of the element.
1. Assess and measure slope using simple tools	1.1 Identify issues with slope such as erosion gullies, plant growth, water pooling 1.2 Use a plumb bob and 3-4-5 triangle or similar to calculate fall 1.3 Record slope profile and fall in several places across a wide slope
2. Peg out contours	2.1 Step an A frame across the slope to find and peg the contour 2.2 Use an A-frame and water level to check contour pegging 2.3 Label or flag contour pegs to avoid confusion
3. Prepare to shape earth	3.1 Select tools and equipment for earth shaping work 3.2 Hire small machinery if necessary or if the job is a big one 3.3 Hire a contractor if the job demands and follow any legislative requirements 3.4 Check weather forecasts and condition of soil before digging
4. Shape earth for nutrient capture and storage	4.1 Use manual or mechanical digging system to shape the earth 4.2 Avoid damage to underground structures, services, roots of trees and building foundations 4.3 Follow the design requirements and clarify any anomalies
5. Test earth shaping work	5.1 Confirm that earth shaping holds water (or drains, as required) 5.2 Confirm that earth shaping of berms, swales or terraces will not erode or pool water 5.3 Rake, sweep or compact to even any discrepancies 5.4 Test earth shaped structure by watering or opening valves and adjust as required
6. Complete earth shaping work	6.1 Line earth shaped swales or ponds according to design 6.2 Plant contour banks or terraces according to design 6.3 Mulch any exposed soil or surfaces or fill, depending on climate and permaculture design requirements 6.4 Clean up any surplus or waste materials from the earth shaping work in an environmentally safe manner 6.5 Return tools, equipment and storable materials to storage

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER213 Assist with basic earth shaping for nutrient capture and storage

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify issues with slope
- measure slope using simple tools
- peg out contours
- shape earth for nutrient capture and storage
- test earth shaping work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices in relation to nutrient capture and storage in earthworks
- behaviour of water in the natural environment
- natural water flows
- earth shaping components common in permaculture systems, such as:
 - swales
 - berms
 - dams
 - terraces
 - grey water reed bed systems
 - ponds
- manual digging techniques
- operation of small earth-moving equipment
- soil testing for earthworks

- working with slopes and contours

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER214 Propagate plants for a permaculture garden system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to propagate plants for a permaculture garden system including small scale nurseries, school nurseries and systems where sales and profit are not the main drivers. It requires knowledge of propagation techniques, basic plant nutrition and potting media suitable for the home propagation system.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to propagate plants	1.1 Collect and wash containers and trays 1.2 Prepare containers with suitable potting mix for the propagation process being undertaken 1.3 Have tools, water and labelling materials on hand
2. Propagate plants using garden techniques	2.1 Take cuttings, sow seed or divide plants as required 2.2 Place new plants into prepared containers to required level and give water, cutting treatment or fertiliser as needed 2.3 Label the new plant accurately 2.4 Place containers in trays or in propagation area to grow on
3. Maintain health of plants during propagation	3.1 Monitor new plants and take remedial action as needed 3.2 Check for disease or pests and treat according to permaculture principles 3.3 Check for root growth and pot into larger container if required 3.4 Water, shelter or shade depending on prevailing weather conditions, size of container and needs of species 3.5 Harden off in a sheltered area before planting out
4. Maintain garden propagation system year round	4.1 Check propagation area between seasonal propagation activities and clean or tidy to avoid disease 4.2 Maintain health of mother plants for propagation purposes 4.3 Maintain stocks of containers, labels, stakes and ties for future use 4.4 Maintain stocks of potting materials and nutrient additives 4.5 Keep propagation system clean and weed free at all times

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER214 Propagate plants for a permaculture garden system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for plant propagation
- propagate plants using garden techniques
- maintain healthy new plants and mother plants

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to propagation, such as:
 - using reclaimed or reused containers (suitably cleaned to avoid cross-contamination)
 - labelling systems using reclaimed materials
 - maintaining rare and unusual varieties
 - using edges and valuing marginal or unusual plants in micro-climates
 - sharing and swapping to increase biodiversity and mutual wellbeing
 - preserving provenance of locally indigenous species
 - testing and trialling for new plants or resistant varieties
 - global food plant preservation including seed saving
- principles of sustainable horticultural practices
- propagation techniques, such as:
 - soft wood cuttings
 - hard wood cuttings
 - tip and root cuttings
 - layering and division

- grafting (whip and tongue, saddle and wedge)
- seed sowing
- basic plant nutrition
- potting mixes suitable for propagation in a garden setting, such as:
 - compost and worm casting mixes
 - sieved and graded sands
 - blends used for different purposes or different times of year
 - sphagnum moss
- basic plant growth and development
- small-scale glass, shade or poly house structures
- methods of waste disposal causing minimal impact on the environment

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER215 Assist with garden soil health and plant nutrition

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist with garden soil health and plant nutrition using simple methods and without costly equipment. It requires knowledge of simple soil testing techniques and how to improve soil health and plant nutrition organically.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Undertake simple soil assessment tests	1.1 Prepare soil samples for testing 1.2 Use simple techniques to check the texture, pH, organic matter and soil life in the soil samples 1.3 Use simple techniques to read the probable soil condition using plant growth and insect or animal activity
2. Add organic or allowable nutrients to improve soil	2.1 Determine needs of soil for improvement 2.2 Add allowable additives such as compost, rock dust, manure and compost tea to improve soil 2.3 Use planting techniques such as green manures, companions, guilds and nurse plants to improve soils and plant nutrition 2.4 Protect the soil with mulch to maintain moisture and discourage unwanted growth
3. Monitor soil health	3.1 Monitor the health of the soil through the seasons 3.2 Ensure soils are not over dry or over wet 3.3 Avoid salting or greywater sodicity if watering with reused water 3.4 Regularly check for health of soil organisms, nutrient deficiency in leaves, and signs of pathogen fungal, bacterial or viral action on plants 3.5 Monitor soil improvement and plant nutrition over time

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER215 Assist with garden soil health and plant nutrition

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- undertake simple soil assessment tests
- add organic or allowable nutrients to improve soil
- Protect soil to maintain moisture and overall soil health

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to soil health and plant nutrition, such as:
 - working with natural soils rather than importing soil
 - soil as an ecosystem
 - soil as biomass and carbon capture and storage
- principles of sustainable horticultural practices
- soil testing techniques, such as:
 - jar test for texture
 - ribbon test and ball test
 - pH testing
 - surface evaporation test
 - worm count
- basic plant nutrition
- allowable additives to improve soils, such as:
 - compost and worm castings
 - compost teas

- rock dust
- gypsum
- green manures
- manures/animal bedding materials
- leaf mould
- plantings – green manures, nurse plants
- companion planting
- dynamic accumulators
- chop and drop
- nutrient trapping systems
- greywater use
- organically certified products
- methods of waste disposal causing minimal impact on the environment

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture to assess this unit of competency and/or have completed a Permaculture Design Course (PDC) and/or have completed the Permaculture Demonstrator Skill Set.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER301 Research and communicate information on permaculture principles and practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to research permaculture principles and practices, develop research techniques to gather general information on permaculture and non-permaculture systems and appropriately communicate information within culturally diverse groups.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research general information on	1.1 Identify sources of information about permaculture 1.2 Interpret written sources of information and extract the

Element	Performance criteria
permaculture	required information 1.3 Access and investigate information from sources other than written 1.4 Interpret information from non-written sources and extract the required information
2. Document application of permaculture principles to a site	2.1 Identify an appropriate site to study 2.2 Research site, using primary data sources and secondary data sources 2.3 Document examples of how permaculture principles have been practically applied on the site
3. Compare permaculture design approach and practices with those of other food production systems	3.1 Identify a range of food production systems 3.2 Identify key characteristics of each system in relation to management of soil, energy, water, nutrient flow, crop rotation and harvesting 3.3 Compare permaculture practices with those of other systems
4. Communicate general information with others on permaculture	4.1 Discuss and share knowledge with colleagues to increase awareness of permaculture principles and practices 4.2 Prepare and deliver permaculture information to small groups 4.3 Respond to questions about permaculture within a small group 4.4 Communicate responses in a culturally appropriate manner

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843PPP01B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER301 Research and communicate information on permaculture principles and practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research general information on permaculture
- identify differences between permaculture and other land management or land use practices
- share general information with others on permaculture

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices
- similarities and differences between other land use and management practices and permaculture, such as:
 - conventional broad-acre farming
 - battery chicken farms
 - intensive meat production facilities (e.g. feedlots, piggeries)
 - fish farming
 - biodynamic agriculture
 - organic mixed farms
- culturally appropriate speech and behaviour
- basic research techniques
- using primary data sources:
 - original data gathered by the researcher
 - measurements

- photographs
- maps or sketches
- soil tests
- observations of light, shade, sun angle
- flora and fauna present at the site
- slope and contour information
- observation of site and adjoining landscape features (e.g. sector analysis)
- weather observations
- using secondary data sources:
- data provided by government departments and agencies, local groups (such as Landcare) or individuals (such as neighbours)
- survey documents, maps and plans
- official weather data
- photographs, such as Google Earth
- communication techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER302 Develop recommendations for integrated plant and animal systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop recommendations for integrated plant and animal systems and requires the application of sound knowledge of permaculture and a broad range of plant-related and animal-related skills.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify scope of integrated plant and animal system required	1.1 Identify client needs and the nature of the job by gathering all relevant information from the client 1.2 Assist client to understand the concept of an integrated plant and animal system 1.3 Define client needs using research and observation
2. Develop options for preferred solutions	2.1 Identify options or devise strategies using research and experiential awareness, permaculture principles and enterprise work procedures 2.2 Examine options or evaluate strategies using problem-solving techniques 2.3 Determine the options based on appropriate evidence, availability of resources, energy, sound cultural principles, permaculture practices, and enterprise work procedures
3. Recommend the preferred solution	3.1 Recommend the integrated plant and animal method of establishment and probable outcomes to the client 3.2 Refer to the origin of the plant and animal species and their cultural requirements in an integrated system where necessary 3.3 Respond appropriately to client requests for clarification or expansion 3.4 Prepare drawings and tables to show how the systems integrate to increase yields, reduce work and eliminate waste 3.5 Record recommendations and report to client appropriately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD844IPA02B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER302 Develop recommendations for integrated plant and animal systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify client needs and the nature of the job
- determine options for developing an integrated plant and animal system
- communicate with clients, work team members, supervisors, suppliers, contractors and consultants
- identify plants
- provide information on the characteristics, needs and functions of plants and animals in integrated systems
- interpret site designs, maps, ground plans and specifications
- prepare drawings and tables showing how the systems integrate

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles related to integrated plant and animal systems
- permaculture practices, such as:
 - minimising effort for maximum effect
 - multiple uses for each element in the system
 - more than one way of providing important functions
 - re-using and valuing resources and energy
 - encouraging productivity of the system
 - seeing solutions not problems
 - using vertical space and other edges and connections
 - preventing waste and loss of resources from the system

- methods of design, such as planning spatially and allowing for overhead and underground structures, shadow, slope and sun angle
- an understanding of the place of permaculture topics sometimes relevant to integrated plant and animal systems, such as:
 - pattern understanding
 - ecological principles
 - climate and weather
 - water
 - soils
 - earthworks
 - aquaculture
 - species identification and selection information
 - plants in integrated systems
 - animals in integrated systems
- local plant suppliers, animal suppliers, consultants, services, products and contractors and availability of local resources
- patterns in permaculture design, such as:
 - patterns in space, such as planting patterns, naturally occurring patterns in nature (radial and bilateral symmetry, spirals, circles, dendritic and mandala patterns)
 - patterns in time, such as succession planting, breeding cycles, seasonality
 - patterns in human culture, such as gardening systems
 - nature as the model for design, such as stacking or layering as with a natural forest
 - gravity as a force for design, such as using contours in design
 - nutrient, water and energy capture, storage and re-use according to the inputs, outputs and intrinsic features of the system

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER303 Maintain integrated plant and animal systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain integrated plant and animal systems, undertake maintenance, and maintain records of activities. Maintaining integrated plant and animal systems requires a knowledge of permaculture activities appropriate to climate and soil types, plants and animals commonly found on permaculture properties, permaculture principles and practices and typical permaculture solutions for water catchment and storage and soil maintenance and improvement for plant and animal systems.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan maintenance of integrated plant and animal systems	1.1 Assess maintenance requirements for the integrated plant and animal system 1.2 Consult stakeholders about maintenance activities where required 1.3 Determine and source the required equipment, machinery and materials for maintenance activities 1.4 Read and interpret permaculture design specifications for the property and follow any specific directions on maintenance approaches and strategies 1.5 Plan movement through production areas to minimise disturbance and degradation during maintenance activities
2. Undertake maintenance activities	2.1 Maintain a clean and safe work area 2.2 Take appropriate measures to avoid degradation and disturbance to soil, plants, animals, waterways and other parts of the ecosystem 2.3 Monitor activities of personnel and visitors to reduce risks to the productive systems undergoing maintenance
3. Complete maintenance activities	3.1 Make site good on completion of maintenance activities 3.2 Clean and store equipment and machinery appropriately on completion of maintenance activities 3.3 Remove or store excess materials 3.4 Maintain records of maintenance activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843IPA03B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER303 Maintain integrated plant and animal systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan maintenance activities for integrated plant and animal systems
- undertake maintenance
- record and report on completion of activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Integrated plant and animal systems, such as:
 - gardens, orchards, organic farms, woodlots and forests that include animals in free range or rotational systems
 - balanced ecosystems where the needs of all species are met
 - systems where poultry provide fertility, pest control and other services to plants, such as:
 - chicken-orchard systems
 - duck-rice systems
 - poultry used as tractor
 - frogs, birds and other wild creatures attracted to the garden to maintain ecological balance
 - patterns seen in nature, such as stacking and layering of plants in a forest, used in deliberate design
- plants and animals commonly found on permaculture properties
- plant groups and vegetation structures
- permaculture practices, such as:

- composting of weeds
- chop and drop practices
- feeding weeds to animals
- soil support and enhancement strategies
- animal husbandry strategies
- permaculture design information, such as:
 - permaculture site plan
 - components of integrated plant and animal systems
- the role of animals in improving soil, recycling nutrients, managing ‘weedy’ plants and controlling pests and diseases
- plants as indicators and improvers
- typical permaculture solutions to water catchment and storage for integrated plant and animal systems
- recycling of materials and waste

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is NOT sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER304 Carry out animal care, maintenance and treatment programs in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out animal care, maintenance and treatment programs in a permaculture system and to accurately evaluate the type and scope of animal needs, administer appropriate treatments and work with the legislative requirements associated with animal care.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare for care, maintenance and treatment of animals	1.1 Identify the appropriate system required for the care, maintenance or treatment of animals 1.2 Determine the type and scope of care 1.3 Identify, prepare and maintain equipment and materials required for the appropriate care, maintenance and treatment of animals 1.4 Identify hazards, assess risks, implement controls and take appropriate action
2. Carry out animal care, maintenance and treatment programs	2.1 Adjust animal care, maintenance and treatment programs appropriately and where needed 2.2 Identify and treat sick or injured animals, if any are found, according to permaculture practices 2.3 Safely handle and restrain animals 2.4 Administer treatment 2.5 Observe withholding periods and isolate animals if treatment requires it
3. Complete animal care, maintenance and treatment program	3.1 Monitor animal health and condition post-treatment and report any abnormalities 3.2 Identify, address and control environmental implications associated with the care, maintenance and treatment of animals 3.3 Maintain a clean and safe work area 3.4 Remove or dispose of waste material appropriately 3.5 Store health treatments according to label instructions 3.6 Document animal care, maintenance and treatment information

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843IPA04B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER304 Carry out animal care, maintenance and treatment programs in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- monitor animal housing, enclosures and fencing and act to ensure good care and hygiene
- assess and provide appropriate animal nutrition and watering provision
- manage and reuse manures and other animal ‘wastes’ safely and hygienically
- diagnose parasitic infestations, diseases and injuries
- select and apply appropriate means to treat parasites, diseases and injuries

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles
- animal care, maintenance and treatment programs, such as:
 - maintenance of animal housing, enclosures and fencing, covering hygiene and welfare
 - ensuring availability of suitable forage, fodder and supplementary feedstuffs, and adjusting stocking rates, ranging and rotation schedules to suit
 - coordinating integration of animal ranging and maintenance with plant production systems (ranging in orchard to manure trees, reduce weeds, pests, eat windfall fruit, tractoring systems, compost manures and housing litter, maintain firebreaks)
 - researching, assessing, sourcing and preparing supplementary stock feed requirements, feeding quantities and schedules
 - researching and applying organic alternatives for treating stock in compliance with organic certification authorities, which may include herbal and homoeopathic treatments, mineral and vitamin supplements and permitted medications

- developing appropriate handling procedures to reduce stress
- harvesting, sourcing and handling useable products (such as milking and collecting eggs)
- requirements for animal housing, enclosures and fencing
- animal health and nutrition requirements
- information documented in animal care, maintenance and treatment records, such as
 - stocking rates
 - rotation schedules
 - pasture condition
 - feeding details
 - harvest records
 - details of equipment and materials used
 - the performance of equipment, faults and malfunctions
 - number of treated livestock and details of treatment, including spur docking for roosters, hoof trimming and other mechanical, non-chemical treatments
 - any testing carried out and results
 - expiry of withholding periods
 - evaluation of treatment effectiveness
 - observed abnormalities or behaviour in livestock
- methods for harvesting, sourcing and handling useable products (e.g. milking, collecting eggs)
- types of parasite infestation, their symptoms and seasonal incidence
- types of health promotion practices, including allowable organic methods
 - assessing the requirements of the particular animals for shelter, enclosure, rotation, food and medicinal plants
 - dosage and rates of treatments appropriate to the identified type of animal, its body weight and severity of infestation, infection or injury
- relevant Codes of Practice with regard to the safe use and handling of hazardous substances
- withholding periods for treated animals

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER305 Implement crop maintenance and harvesting programs for permaculture systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement crop maintenance and harvesting programs for permaculture systems. Crop maintenance methods may include, thinning, spacing, selective harvesting, training, summer and winter pruning, hedging, skirting, topping and trimming. Crop harvesting methods may include manual and machine-assisted harvesting.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to

Element	Performance criteria
essential outcomes.	demonstrate achievement of the element.
1. Plan for maintenance and harvesting of permaculture crops	1.1 Identify requirements of the site and crop maintenance program 1.2 Select materials, tools, equipment and machinery 1.3 Carry out pre-operational and safety checks on tools, equipment and machinery 1.4 Identify work health and safety hazards, assess risks, implement controls and take appropriate action 1.5 Select, use and maintain appropriate safety and personal protective equipment
2. Maintain permaculture crops	2.1 Implement maintenance tasks in sequence to the crop maintenance program 2.2 Instruct personnel or work team members to undertake required maintenance operations 2.3 Ensure tasks are undertaken according to work health and safety requirements and environmental considerations 2.4 Monitor maintenance of crop and take corrective action where required 2.5 Maintain a clean and safe work area throughout maintenance operations
3. Harvest permaculture crops	3.1 Implement harvesting tasks in sequence to the crop maintenance program 3.2 Instruct personnel or work team members to undertake harvesting operations 3.3 Ensure compliance with work health and safety requirements and observe environmental considerations 3.4 Monitor harvesting of crop and take corrective action to ensure standards are met 3.5 Maintain a clean and safe work area throughout harvesting operations
4. Complete maintenance and harvesting activities	4.1 Re-use or dispose of waste material 4.2 Clean, maintain and store tools, equipment and machinery appropriately 4.3 Record harvesting outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843IPA05B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER305 Implement crop maintenance and harvesting programs for permaculture systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret site plans and crop maintenance and harvesting schedules
- harvest or maintain crops correctly and without damaging produce
- coordinate work group, contractors and own activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to obtaining a yield
- principles of maintaining crops and the methods used to maximise crop yields
- maintenance techniques for a range of crops, such as:
 - manual thinning
 - selective harvesting
 - training
 - summer and winter pruning
 - hedging
 - skirting
 - topping
 - trimming
 - picking
 - bagging
 - trellising
- maturity or ripeness properties of crops when ready for harvest

- effects of maintenance operations on plant growth, habit and production levels of maintenance operations
- maintenance of soil health and impact on production
- enterprise quality procedures and characteristics of a crop relative to varying market requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER306 Use weedy plants in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to control and make use of weedy plants in a permaculture system. It also includes permaculture practices, such as use of succession in a permaculture system and the use of harvest as a means of control.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess the implications of weedy plants in the	1.1 Assess the scope and size of the weedy plant population

Element	Performance criteria
system	1.2 Investigate the soil properties, water availability and terrain of the affected areas 1.3 Investigate the history of the previous land use and management strategies of the site 1.4 Identify weedy plants and associated organisms and record in field notes 1.5 Identify weedy plant populations tolerated by the client, market or environment according to the permaculture management plan 1.6 Identify weedy plant population levels above which plant health or growth objectives are compromised 1.7 Obtain professional advice as required according to permaculture management plan
2. Plan the implementation of permaculture weedy plant management plan	2.1 Identify uses for weedy plants, waste materials and debris for fodder, mulching or composting 2.2 Select tools, equipment, machinery, and other control measures for each part of the weedy plant management work, according to the permaculture management plan 2.3 Select, use and maintain suitable safety equipment and personal protective equipment (PPE)
3. Implement the permaculture weedy plant management plan	3.1 Coordinate the enterprise work team, contractors and/or control animals in a sequential manner according to the permaculture weedy plant management plan 3.2 Implement the permaculture weedy plant management plan 3.3 Maintain records appropriately
4. Monitor the permaculture weedy plant management plan	4.1 Monitor progress of the permaculture weedy plant management plan to identify side effects to other plants, animals or the environment 4.2 Assess effectiveness of the permaculture weedy plant management plan 4.3 Adjust the permaculture weedy plant management plan where necessary to meet expectations

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843IPA06B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER306 Use weedy plants in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- recognise a range of weedy plants and associated organisms within a particular permaculture enterprise
- identify uses of weedy plants in a permaculture system
- identify control methods used in permaculture weedy plant management plan
- implement a permaculture weedy plant management plan
- assess progress and effectiveness of the permaculture weedy plant management plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices in relation to the management of weedy plants
- weedy plant recognition
- strategies used in weedy plant management plans, such as:
 - organic chemical, biological and cultural control methods and treatments available to the enterprise within the parameters of a permaculture weedy plant management plan
 - range and use of tools, equipment and machinery available to the enterprise for implementing a permaculture weedy plant management plan
 - animal systems to use the weedy plant as a food source
 - plants and planting strategies to out-compete weedy plants or to be used as a follow up to successful treatment
- site monitoring and analysis techniques that may be used to implement a permaculture weedy plant management plan
- roles that weeds play within an ecological system, such as:

- soil stabilisers
- fodder for wild and domestic animals
- nutrient traps
- nutrient mining from subsoil
- identification of a range of edible weedy plants
- uses for weedy plants including commercial uses, such as:
 - animal fodder
 - basket making
 - compost teas
 - food and medicinal products, such as nettles as cheese wraps or herbal teas

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Certificate is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER307 Establish a rural permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish a rural permaculture system from a permaculture design, as well as knowledge of a broad range of integrated plant and animal systems, earth shaping skills, soil improvement, water harvesting and work site coordination skills.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to establish a rural permaculture system	1.1 Read and interpret the design for the permaculture system 1.2 Identify the site, planting methods and system features 1.3 Select materials, tools, equipment and machinery
2. Coordinate establishment of the rural permaculture system	2.1 Coordinate work tasks in a sequential, timely and effective manner 2.2 Establish the permaculture system according to work health and safety requirements and with due consideration for environmental implications 2.3 Maintain a clean and safe work area throughout
3. Prepare the area	3.1 Undertake earthworks if required 3.2 Select and apply additives to the soil as required 3.3 Mark out patterns or positions of elements on site according to permaculture design
4. Undertake positioning of elements in the rural permaculture system	4.1 Inspect elements prior to planting, introduction or installation and remove elements with major defects 4.2 Trim or treat plants with minor defects to maintain health and vigour 4.3 Position elements to enable them to develop their full potential according to zone and sector analysis, pattern understanding and the permaculture design 4.4 Provide elements with post-installation care
5. Monitor establishment of the rural permaculture system	5.1 Monitor the system and take corrective action as needed 5.2 Identify situations which will prevent elements from reaching their full potential 5.3 Complete works for the permaculture design
6. Complete establishment of the rural permaculture system	6.1 Remove or dispose of waste material from the site 6.2 Clean, maintain and store tools, equipment and machinery 6.3 Report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843DES07B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER307 Establish a rural permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- communicate with work team members, supervisors, contractors and consultants
- utilise recording, reporting, analysis and work procedure documents
- read and interpret the permaculture design
- prepare the area for installation of elements of design
- install elements progressively over an appropriate period of time to establish the rural permaculture system

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles of permaculture and practices in a rural context
 - rural permaculture system design for a farm or small holding where permaculture is practiced
- zone and sector analysis, for example:
 - consideration of the frequency of use and intensity of need of elements in the system
 - consideration of the spatial requirements of elements in the system
 - mutual benefit and connections between zones
 - consideration of the specific needs of the location of the system in terms of climate, access, slope, potential for wild fire, flood, tsunami or other catastrophic force
 - Consideration of the neighbouring or local environment, its need, products and intrinsic features
- Establishment of permaculture elements:
- Elements which together form a system

- species chosen for their functions in the overall system including plants, animals and objects
- elements chosen for mutual benefit
- elements which address important functions such as energy, water, food and fuel
- elements which support the needs of the system within the overall design
- the objectives of the plant system establishment program, including finished plant system forms, site appearance, end use and time constraints
- the interactions between plants and animals and how to maximise the benefits
- cultural requirements, planting procedures and follow-up care for plants
- environment and habitat requirements of animal species
- the identification of pests, diseases, parasites, and deficiencies that are likely to affect plants and animals and the use of appropriate treatments
- soils and appropriate soil amelioration techniques
- the ecology of the native species, and their value in a permaculture system

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER308 Establish an urban permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish an urban permaculture system from a permaculture design, as well as knowledge of a broad range of integrated plant and animal systems, urban retrofitting skills, soil improvement, water harvesting and work site coordination skills.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to establish an urban permaculture system	1.1 Read and interpret the design for the permaculture system 1.2 Identify the site, planting methods and system features 1.3 Select materials, tools, equipment and machinery
2. Establish the urban permaculture system	2.1 Coordinate work tasks 2.2 Establish the permaculture system 2.3 Maintain a clean and safe work area
3. Prepare the area	3.1 Undertake site retrofitting as required 3.2 Select and apply additives to the soil as required 3.3 Follow the permaculture design and mark out patterns or positions of elements on site
4. Position elements in the urban permaculture system	4.1 Inspect elements prior to planting, introduction or installation and remove plants with major defects 4.2 Trim or treat plants with minor defects to maintain health and vigour 4.3 Position elements to enable them to develop their full potential according to zone and sector analysis, pattern understanding and the permaculture design 4.4 Provide elements with post-installation care
5. Monitor establishment of the urban permaculture system	5.1 Monitor the system and take corrective action as needed 5.2 Identify situations which will prevent elements from reaching their full potential 5.3 Complete works for the permaculture design
6. Complete establishment of the urban permaculture system	6.1 Remove or dispose of waste material appropriately from the site 6.2 Clean, maintain and store tools, equipment and machinery 6.3 Report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843DES08B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER308 Establish an urban permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- Communicate with work team members, supervisors, contractors and consultants
- utilise recording, reporting, analysis and work procedure documents
- interpret the permaculture design
- install elements progressively to establish the urban permaculture system (over an appropriate period of time)

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles of permaculture and practices in an urban context
- Urban permaculture systems, such as:
 - houses and gardens where permaculture is practiced, or a productive section of it
 - community gardens or city farms where permaculture is practised
 - school gardens where permaculture is practised, or productive sections of them
 - Chicken, rabbit, guinea pig or other tractor systems
 - continuous worm farm systems
 - chicken dome pattern systems
 - tyre pond and mandala aquaculture systems appropriate to an urban permaculture system
 - aquaponics systems
 - duck and rice systems and other integrated systems appropriate to an urban permaculture system which utilise an animal, fish or bird species to generate a yield in association with plant species

- Zone and sector analysis
 - Consideration of the frequency of use and intensity of need of elements in the system
 - Consideration of the spatial requirements of elements in the system
 - Mutual benefit and connections between zones
 - Consideration of the specific needs of the location of the system in terms of climate, access, slope, potential for wild fire, flood, tsunami or other catastrophic force
 - Consideration of the neighbouring or local environment, its needs, products and intrinsic features
- Elements in permaculture elements
 - Elements which together form a system
 - species chosen for their functions in the system, including plants, animals and objects (built or existing)
 - elements which are chosen for mutual benefit
 - each important function (energy, water, food, fuel etc.) is supported by many elements
 - elements support the needs of the system within the overall design
- the interactions between plants and animals and how to maximise the benefits
- plant and animal species and their cultivars or breeds and what they contribute to the system
- cultural requirements, planting procedures and follow-up care for plants
- environment and habitat requirements of animal species
- the identification of pests, diseases, parasites, and deficiencies that are likely to affect plants and animals and the use of appropriate treatments
- soils and appropriate soil amelioration techniques
- the ecology of the native species, and their value in a permaculture system
- site retrofitting for urban permaculture systems:
 - constructing soil retainers
 - installing irrigation and drainage systems including swales, diversion drains, mulch-pit paths
 - establishing integrated plant and animal systems
 - collection and storage of nutrients or water
 - solar passive modifications to structures

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER309 Install and maintain permaculture water systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit provides the skills and knowledge to install and maintain permaculture water systems, organise resources for installation work, set out and prepare site, install water system components, complete installation work, commission water system systems and communicate with work team members, supervisors, contractors and consultants.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Organise resources for	1.1 Identify the construction site and construction method for the

Element	Performance criteria
installation work	<p>permaculture water system according to the permaculture plan</p> <p>1.2 Select materials, tools, equipment and machinery, water storage, movement and filtering systems according to the permaculture design requirements</p> <p>1.3 Check parts and equipment delivered to the site according to system drawings and specifications on the permaculture plan</p> <p>1.4 Check water supply to ensure that it is compatible with system specifications</p> <p>1.5 Carry out pre-operational and safety checks on tools, equipment and machinery according to manufacturer's specifications</p> <p>1.6 Select, use and maintain suitable safety and personal protective equipment</p>
2. Set out and prepare site	<p>2.1 Measure and mark out permaculture water system lines or lay out in accordance with the permaculture plan</p> <p>2.2 Dig trenches, where required, at the specified depth without damage to services, facilities, features and established plants</p> <p>2.3 Ensure that equipment operation and work practices conform with OHS requirements</p> <p>2.4 Observe any regulations and legislative requirements relevant to the situation</p> <p>2.5 Consider the needs of other stakeholders while setting out and preparing the site for permaculture water systems</p>
3. Install permaculture water systems	<p>3.1 Interpret the permaculture plan and, where applicable, supervise and monitor work by contractor</p> <p>3.2 Assemble and connect parts of irrigation systems, where used, according to manufacturer's specifications and the permaculture plan</p> <p>3.3 Install and adjust pump fittings and valves, where used according to manufacturer's specifications and the permaculture plan</p> <p>3.4 Maintain a clean and safe work area while installation work is carried out</p> <p>3.5 Check that works can be carried out without a licensed plumber and direct work to licensed individuals where required.</p>
4. Complete installation work	<p>4.1 Finish off earthworks to permaculture plan specifications</p> <p>4.2 Check the system configuration and capacity matches the installation plan</p> <p>4.3 Remove or dispose of waste material from the site, and restore site to original state in an environmentally aware and safe manner</p> <p>4.4 Clean, maintain and store tools, equipment and machinery</p>

Element	Performance criteria
5. Commission permaculture water systems	5.1 Prime, start up and flush irrigation and pump systems, where installed, in accordance with the operation manual 5.2 Identify and correct any operating faults according to operations manual 5.3 Test, calibrate and monitor equipment, where used, according to manufacturer's specifications 5.4 Record or report work outcomes, where appropriate
6. Monitor and maintain permaculture water systems	6.1 Regularly check permaculture water systems and monitor for optimum performance 6.2 Carry out routine maintenance procedures on permaculture water systems 6.3 Carry out repairs on permaculture water systems as required 6.4 Install erosion and sediment control measures, if required, in accordance with manufacturer's recommendation and the permaculture plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843WAT09C.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER309 Install and maintain permaculture water systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- organise resources for installation work
- set out and prepare site
- install permaculture water systems materials and components, excluding works requiring a licensed plumber.
- commission a permaculture water system
- monitor and maintain permaculture water systems
- communicate with work team members, supervisors, contractors and consultants

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture practices regarding water including natural flows, rainwater and wastewater, storage, movement and retention of water in the system
- permaculture water systems, such as:
 - swales
 - contour banks
 - terraces
 - mulch-pit paths
 - diversion channels and other passive installations
 - mains pressure systems
 - low pressure or gravity systems
 - below-ground systems
 - above-ground systems

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- spray, dripper and capillary irrigation systems
 - water tanks
 - guttering and first-flush diversion system
 - water supply components, such as:
 - mains
 - dam
 - bore
 - windmill
 - tank
 - channel
 - understanding of contours
 - installation methods and techniques for permaculture water systems
 - components of permaculture water systems
 - characteristics and operation of joints, valves and sprinkler components
 - operation of pumps and water flow rates
 - behaviour of water on varying terrain and soil types
 - soil water retention testing techniques
 - water quality and water filtration techniques
 - calculations for installing permaculture water systems
 - soil characteristics
 - regulations and legislative requirements, such as:
 - permits for pruning or removal of large trees
 - connecting to water systems
 - licences for operating specialised machinery, such as chainsaws, skid steer loaders and forklifts
 - setting up traffic and pedestrian barriers
 - digging near services (phone, gas, power, water, sewerage and drains)
 - installing dams or diverting water in catchments
 - installing tanks
 - planning acts and codes
 - earth movement and digging guidelines and legislation
 - environmental legislation
 - land restoration codes
 - water conservation guidelines and legislation
 - soil movement regulations
 - habitat and wildlife protection legislation

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER310 Install structures for permaculture systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to install permaculture structures and features. These structures and features may include fences, trellises, animal housing, sheds, pergolas, appropriate technologies and other constructed features.

All work is carried out to comply with workplace procedures. Manufacturer's specifications are observed and operating instructions are followed when using tools and equipment.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare for	1.1 Interpret plans and clarify specifications with the manager,

Element	Performance criteria
structural work	client or owner 1.2 Check the quantity and quality of materials to ensure they conform to permaculture design drawings and specifications 1.3 Select and check tools and equipment 1.4 Identify work health and safety hazards, assess risks, implement controls and take appropriate action 1.5 Identify environmental implications of installing permaculture structures
2. Set out the site for the structure	2.1 Determine the location of services from site plans and from local knowledge 2.2 Mark out the position of the structure or feature using permaculture design drawings and specifications 2.3 Excavate and prepare any footings or post holes appropriate to the type of structure to be installed
3. Prepare and cut materials	3.1 Lay out materials ready for assembly 3.2 Mark out the length of materials and the positions of joints according to designated specifications in the permaculture design drawings 3.3 Select, use and maintain cutting and other tools 3.4 Cut and join materials in preparation for assembly
4. Assemble and erect structure	4.1 Assemble materials into position and fix into place 4.2 Finish structure to ensure all materials are secure and complete 4.3 Apply any required coatings
5. Check quality of work and clean-up site	5.1 Inspect quality of finished works and ensure the standard of the finished structure or feature is appropriate to the permaculture design drawings and specifications 5.2 Clean up debris from structure and site 5.3 Dispose of waste material 5.4 Store or recycle unused materials for future re-use 5.5 Clean and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843BUI10B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER310 Install structures for permaculture systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret permaculture design drawings and specifications
- measure and mark lengths of materials accurately
- join and cut materials using different techniques and methods
- install and check permaculture structure

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles regarding structures and the built environment
- Permaculture design drawings and specifications, such as:
 - Permaculture design including construction detail drawings
 - measured drawing of structure in accordance with permaculture principles
- measuring principles and techniques
- typical permaculture structures, such as:
 - garden structures and features
 - fences and trellising
 - animal housing and shelters
 - netting structures and protective devices for plants
 - paving and landscaping
 - composting and worm-farming structures
 - retaining walls, observing relevant regulatory conditions
 - sheds or small outbuildings, observing relevant regulatory conditions)

- components of houses or other buildings, observing relevant regulatory conditions
- the correct use of hand and power tools and other work health and safety requirements associated with installing structures and features
- comparative environmental implications associated with excavation and construction activity
- safe lifting and transporting techniques
- appropriate use of personal protective clothing and equipment (PPE)
- appropriate use and installation of safety signs and barriers
- site access points
- implication of alteration to water flow during and after construction

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER311 Kill and dress small livestock for domestic consumption

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit provides the skills and knowledge required to identify and select small livestock for slaughter, preparing killing equipment, conducting safe and humane slaughter of small livestock, dressing and protecting meat, appropriately storing meat and ensuring meat is suited to end-use requirements. Competency also requires the application of skills and knowledge to hygienically clean equipment and slaughter areas and dispose of waste materials.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for slaughter operations	1.1 Identify reasons for slaughter 1.2 Prepare equipment and transport to slaughter area 1.3 Select small livestock to be slaughtered and prepare for slaughter 1.4 Determine slaughter method and prepare slaughter area
2. Slaughter animal	2.1 Conduct slaughter humanely, with a minimum of stress to the animal or to other animals and people 2.2 Dress, hang and protect carcass 2.3 Follow all relevant WHS, regulatory and animal welfare requirements during slaughter operations
3. Complete slaughter operations	3.1 Dispose of waste products in an environmentally responsible manner 3.2 Process usable offal immediately. Separate other useable products and prepare as required 3.3 Identify intended end-use of meat 3.4 Prepare meat for end-use and store or treat as required 3.5 Hygienically clean equipment and store for re-use 3.6 Hygienically clean slaughter area

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843IPA11B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER311 Kill and dress small livestock for domestic consumption

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and select small animals for slaughter
- humanely and hygienically kill small livestock
- dress and butcher small livestock carcasses
- clean facilities and equipment
- prepare and store meat
- dispose of wastes in an environmentally responsible manner

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture practices with regard to killing small livestock, such as:
 - need to supply meat for domestic human or animal consumption
 - need to cull pest animals such as rabbits
 - need to cull animals in excess
 - need to destroy old or sick small livestock
- health restrictions and laws applying to the slaughter of livestock for sale, including not offering for sale small livestock slaughtered for domestic consumption, except where these laws are well understood and adhered to)
- relevant legislative work health and safety requirements, especially where they relate to livestock and slaughter, and animal handling techniques
- animal welfare legislation, such as:
 - meat industry health and safety guidelines
 - Australian standard for hygienic production of meat for human consumption

- ANZFA food standards code
- state and territory regulations regarding meat slaughter handling and consumption
- industry and enterprise quality assurance standards
- withholding periods
- animal welfare legislation
- disease control legislation and requirements
- withholding periods
- usable products other than meat, such as:
 - feathers
 - skins
 - chicken feet and combs
- usable offal and offal disposal regulations, such as:
 - select cuts, such as poultry offal or rabbit kidneys, that are fit for human consumption
 - handling offal safely and hygienically
- human health and hygiene
- health issues affecting both humans and small livestock
- end uses for animal carcasses, such as:
 - meat for human consumption
 - disposal of culled old or sick small livestock
 - maximising useful meat cuts and other products of slaughter
- storage or treatment of products from animal slaughter, such as:
 - cool room, refrigerator and freezer
 - smoke-house or curing facilities
 - salting barrel
 - cauldron or large boiler for cooked treatments
 - containers for storage
- poultry and small animal carcass hanging methods, such as:
 - dressing to avoid cuts to carcass or pelt
 - preparing skin for drying, storage or disposal
 - protecting from dust, heat, flies, wild birds or wild animals with appropriate gauze or bags or shelters until process is complete
 - cold room or cool room
 - refrigerator or freezer

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER312 Plan organic garden and orchard systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan organic garden and orchard systems. It requires the application of horticultural and permaculture knowledge including permaculture principles, plant types, conditions and requirements to establish orchards for optimum production.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Assess site for organic garden and orchard system	1.1 Inspect the site for environmental and physical attributes 1.2 Research site characteristics, using a range of information sources 1.3 Test soil and analyse the results 1.4 Identify site constraints and opportunities 1.5 Define location of existing structures and services 1.6 Prepare site plan and zone and sector plan of site, based on information collected
2. Select plants for organic garden and orchard system	2.1 Select suitable plant varieties and types 2.2 Determine preferred type of plant materials for planting 2.3 Determine number and size of plants and plant materials
3. Develop planting plan for organic garden and orchard system	3.1 Identify zone and sector details from the site plan 3.2 Identify and place plants to be installed 3.3 Record required actions, timelines and specific information on the plan 3.4 Investigate availability of plants, materials and services for the system

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843IPA12B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER312 Plan organic garden and orchard systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess site for planting
- test soil and analyse the results
- select plants
- identify zones and sectors of site to ascertain best planting locations
- identify structures and services and how these may impact on the plan
- develop planting plan to include at least 5 fruit trees or shrubs

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and ethics
- permaculture site planning
 - boundaries of sites drawn at an appropriate scale
 - direction of North (or sunward)
 - location of plants
 - other information relevant to a permaculture garden and orchard system drawn in clear and accurate graphic style
 - planting schedules and timelines, including Gantt charts
- zone and sector planning, such as:
 - zones for garden and orchard systems (Zones 1 and 2)
 - sector information such as prevailing winds, fire aspect, winter and summer sun angles, best locations for sun-loving and shade-tolerant species
 - microclimate information

- zone and sector plans drawn as overlays to a site plan
- garden and orchard systems, such as:
 - an orchard with 5 to 10 or more assorted fruit trees or shrubs
 - integrated plant and animal systems
 - consideration of and design for plant ecosystem relationships
- soil structure, types and function, including soil tests for agricultural purposes
- soil maintenance and improvement techniques
- aims and purposes of building organic garden and orchard systems
- design principles for organic garden and orchard systems
- features and characteristics of plants used in organic garden and orchard systems
- growing requirements of plants used in organic garden and orchard systems
- biosecurity policies and principles

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER313 Coordinate preparation and storage of permaculture products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit provides the skills and knowledge of permaculture product preservation techniques; planning for the preparation of permaculture products; handling and storage requirements of permaculture products and their treatment, storage and presentation requirements.

All work is carried out to comply with workplace procedures. Individuals observe manufacturer's specifications and follow operating instructions when using tools and equipment.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to

Element	Performance criteria
essential outcomes.	demonstrate achievement of the element.
1. Plan for preparation of permaculture products	1.1 Identify permaculture products to be prepared 1.2 Select materials, tools, equipment and machinery 1.3 Carry out pre-operational and safety checks on tools, equipment and machinery in accordance with manufacturer's specifications 1.4 Select, use and maintain suitable safety and personal protective equipment (PPE)
2. Co-ordinate preparation of permaculture products	2.1 Prepare permaculture products in sequence according to the product preparation plan 2.2 Ensure that all assistants are familiar with the plan 2.3 Maintain clean, safe and hygienic work area throughout and on completion of work
3. Treat permaculture products	3.1 Grade and label products in accordance with the product preparation plan 3.2 Identify and dispose of products that do not meet specifications, according to best environmental practice 3.3 Select treatments according to product requirements and the product preparation plan 3.4 Treat permaculture products in an economical, methodical, and efficient manner that minimises damage to products
4. Pack and present permaculture products	4.1 Implement packing and presentation requirements as specified in the product preparation plan 4.2 Label and date products as required 4.3 Monitor packing and presentation of products and take corrective action to ensure that packing and presentation meet required standards
5. Store permaculture products	5.1 Identify available storage area so that product can be moved there quickly and efficiently 5.2 Adhere to storage requirements specified in the product preparation plan 5.3 Monitor storage processes and facilities and take corrective action, when required, to maintain product quality

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843RES13B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER313 Coordinate preparation and storage of permaculture products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan for preparation of permaculture products
- process and preserve permaculture products
- pack, present and store permaculture products
- coordinate the work of others in the preparation and storage process

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles related to product preservation and storage
- seasonal availability cycles
- products suitable for storage
- the following plant products:
 - fruits
 - vegetables
 - seeds
 - herbs
 - flowers
 - foliage
 - grains
 - bulbs
 - tubers
 - nuts

- mushrooms
- wild harvest plants
- oils
- firewood
- bamboo
- timber
- legumes and pulses
- mulch
- straw
- hay
- sawdust
- sap
- the following animal products:
 - meat
 - eggs
 - milk and dairy products
 - honey and bee products
 - young animals
 - fish fingerlings
 - feathers
 - wool
 - manure
 - bones
- storage methods appropriate to particular products
- treatment methods appropriate to particular products,:
 - removal of dirt and foreign material
 - stripping excess leaves and/or trimming
 - brushing
 - washing/hydration
 - drying
 - applying preservatives
 - dipping
 - observing quarantine requirements
 - storing in a controlled environment
 - comply with organic standards, if appropriate
- the importance of maintaining the quality of products including handling and storage requirements
- correct storage conditions for products:
 - specifications for storage facilities
 - environmental conditions such as temperature, humidity and light

- length of storage
- position in the storage facility: shed, cellar, root cellar, pantry, barn, refrigerator, freezer, drying room
- cleaning processes to ensure a level of hygiene that protects the quality and health status of the stored products
- hygiene issues in the handling and storage of biological products

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER314 Read and interpret property maps and plans

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to read and interpret property maps and plans, take information from maps and use maps in field situations.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Recognise maps and plans	1.1 Define different types and uses of maps and plans 1.2 Recognise features and characteristics of different maps and

Element	Performance criteria
	plans 1.3 Identify scale 1.4 Define and locate North 1.5 Recognise mapping conventions and common symbols
2. Take off information from maps	2.1 Determine distances and areas from maps and plans 2.2 Identify topographic features from maps and plans 2.3 Recognise site boundaries and site structures from maps and plans
3. Use maps in field situations	3.1 Locate current position in the field using landmarks and key geographical features 3.2 Recognise hazards and potential hazards in traversing from location to destination and interpret these from maps or plans, field observations and local knowledge 3.3 Check accuracy of maps or plan content against site features 3.4 Set out contour lines on site from maps or plans 3.5 Locate keylines and key points on map and in the field 3.6 Set out zones or property boundaries using grid system from maps or plans

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843DES14B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER314 Read and interpret property maps and plans

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- define maps and plans
- determine distances and areas
- identify topographical features
- identify site boundaries and site structures
- use maps to take-off information
- use maps in field situations

Knowledge Evidence

The candidate must demonstrate knowledge of:

- maps and plans
 - paper
 - electronic
 - 3D models of sites, including sand-box models
 - contour models
 - elevations and cross-sections
 - aerial photographs
- the following mapping conventions: symbols, distance and scale, direction, coordinate systems, line and area symbols, true North, grid North and magnetic North
- land survey systems, map projections, colour and symbol systems
- contours, slopes and slope profiles
- keyline and key point locations, as described in *Water for Every Farm* by P.J. Yeomans
- topographic features

- curved planes on flat surface distortions
- means of locating current position in the field, such as:
 - GPS
 - other positioning systems such as the sun, moon and stars
 - compass bearings

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER315 Coordinate community projects

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate small-scale community projects and small groups of people working on a permaculture-related project.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for community project	1.1 Clarify requirements of the community project after community consultation and design

Element	Performance criteria
	1.2 Identify personnel, equipment and material resource requirements appropriate to the scope of the project 1.3 Identify on-site, off-site, purchased, traded or scavenged resources 1.4 Identify and document the order of activities and allocate time to carry them out 1.5 Identify the environmental implications of proposed community projects and assess likely outcomes 1.6 Identify work health and safety hazards, assess risks, implement controls and take appropriate actions 1.7 Select, use and maintain personal protective equipment appropriately (PPE)
2. Organise resources	2.1 Acquire materials, equipment and resources 2.2 Apply for external agency permits in the correct order where required 2.3 Notify affected parties of works to be undertaken where required 2.4 Organise delivery of materials, equipment and resources to site 2.5 Organise personnel to be on site when they are required
3. Coordinate and report on activities	3.1 Coordinate all resources to suit the scope of the project and the project plan 3.2 Direct personnel in activities for each period of work 3.3 Monitor personnel, activities, timelines and resource usage and document 3.4 Recognise contingency situations and take corrective action as appropriate 3.5 Select and train teams to take over the running of the project to ensure the long-term survival of the project, if required 3.6 Write a project report to inform the community and other stakeholders

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD843COM15B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER315 Coordinate community projects

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- read and interpret documentation associated with community projects
- organise field staff and volunteers
- represent and support community organisations
- calculate material and resource requirements
- coordinate project activities
- document and report results

Knowledge Evidence

The candidate must demonstrate knowledge of:

- community projects, such as:
 - small or short-term projects
 - projects that form part of larger projects
 - arranging social events
 - carrying out fundraising and sponsorship
 - representing a community group or project
- environmental awareness associated with undertaking project works to ensure minimal impact on the environment
- work schedule programming
- hiring and subcontracting of labour
- attracting volunteers
- possible causes of disruption to work activities and contingency situations, such as:
 - delay in delivery and/or breakdowns with equipment and machinery

- poor weather conditions
- poor quality materials
- unforeseen problems
- provision for providing other work on the site or away from the site while problems are fixed
- delaying a project if possible and necessary
- responsibilities and requirements for obtaining external agency permits as necessary
- the range, use and availability of materials, equipment and resources required for a project
- work health and safety issues, legislative requirements and Codes of Practice
- community consultation
- project coordination principles
- meeting and committee protocols
- project reporting
 - the project name
 - author name and date
 - project description
 - progress of activities
 - promotions and publicity
 - OHS issues
 - expenditure
 - future project-related activities that require planning

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER316 Select plant and animal species for permaculture systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to select plant and animal species for permaculture systems. It requires knowledge of permaculture needs analysis and bioregional analysis and plant and animal species and their interrelationships.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess the system needs	1.1 Undertake a needs analysis of the permaculture system and its main elements 1.2 Identify possible plant and animal combinations to suit the

Element	Performance criteria
	permaculture system design 1.3 Compile a list of possible plants and animals to suit the design
2. Research plant and animal systems	2.1 Research the plants and animals and any varieties or breeds that the needs analysis has identified 2.2 Observe other working systems that may inform the new design 2.3 Assess local availability of chosen varieties and breeds
3. Select plant and animal species for the permaculture system	3.1 Determine appropriate combinations of plant and animal species for the permaculture system 3.2 Ensure ancillary needs such as housing, prepared ground, shelter and fodder are available and in place before establishing the new plant and animal systems 3.3 Obtain plants and animals elements for the permaculture system 3.4 Monitor plant and animal systems during the establishment phase

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER316 Select plant and animal species for permaculture systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess permaculture system needs
- research plants and animals to inform the new permaculture system design
- select plant and animal species for a permaculture system
- monitor plant and animal systems during the establishment phase

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to species selection
- permaculture needs analysis
- bioregional analysis
- plant and animal species and their interactions and interrelationships, such as:
 - permaculture combinations – guilds, companions, nurse plants and animal companions
 - EVCs (Ecological Vegetation Classes)
 - indigenous animals and plants
 - what grows or thrives locally – plants, animals, birds, insects, fish, frogs, reptiles
 - food, fodder and medicinal plant species suitable for chosen animals
 - integrated plant and animal systems such as chicken tractors, cell grazing, aquaculture systems
- basic research techniques
- using primary data sources, such as:
 - original data gathered by the researcher
 - local wisdom

- weather observations
- flora and fauna observations
- using secondary data sources, such as:
 - data provided by government departments and agencies
 - publications
 - reference books, websites and journals
 - official weather data
- communication techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER317 Build with earth, straw and reclaimed materials

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to build with earth, straw and reclaimed materials, using techniques that use local earth, straw and rock, and that turn problems into solutions by converting waste, surplus or low embodied energy materials into solid and serviceable structures.

All work is carried out to comply with workplace procedures. Individuals observe manufacturer's specifications and follow operating instructions when using tools and equipment.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to

Element	Performance criteria
essential outcomes.	demonstrate achievement of the element.
1. Research building methods	1.1 Research appropriate building methods to decide which methods will be appropriate for the project 1.2 Review the availability of materials locally and their suitability for the chosen method 1.3 Consult experts and tradespeople to confirm suitability of chosen building method and materials
2. Prepare for the building project	2.1 Collect materials on site 2.2 Obtain labour support and engage experts where necessary 2.3 Clear the site and mark out the area
3. Build with earth, straw and reclaimed materials	3.1 Using the chosen method, commence building the structure 3.2 Use reclaimed materials where possible and ensure that they are structurally suitable 3.3 Use natural finishes and treatments where possible and appropriate
4. Limit and re-use surplus and waste materials	4.1 Ensure that the surplus or waste materials are stockpiled or stored for future re-use where possible 4.2 Demonstrate appropriate uses for all available materials and share and swap with other projects where possible 4.3 Limit the amount of waste material removed from the site and ensure that it goes to a new use rather than to landfill wherever possible
5. Check quality of work and clean-up site	5.1 Inspect quality of finished works and ensure the standard of the finished built structure is appropriate to the permaculture design drawings and specifications 5.2 Clean up debris from structure and site 5.3 Clean and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER317 Build with earth, straw and reclaimed materials

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research building methods
- prepare for the building project
- build with earth, straw and/or reclaimed materials
- limit and re-use surplus and waste materials
- ensure the standard of the finished built structure is appropriate to the permaculture design

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles regarding structures and the built environment
- Building methods, such as
 - mud brick
 - straw bale
 - cobb & light earth
 - rammed earth (Pise)
 - wattle and daub
 - stabilised/compressed earth brick
 - earth ship
 - aerated concrete
 - compressed paper and timber fibres
 - wool brick
 - air dried timber

- structural issues
- planning issues
- properties of materials and suitability of local soils and timbers for building uses
- environmental, logistical and safety factors, such as:
 - issues related to harvesting and milling of local timbers
 - possible contaminants in or on materials
 - weight and size of materials and their transport to the site
- reclaimed materials, such as:
 - commercial timber off-cuts and wastes
 - demolition materials (timbers, windows and doors, plumbing fittings, roofing materials, bricks and other masonry items)
 - railway sleepers, telegraph poles, bridge timbers and other heavy reclaimed timbers
 - metal mesh and grill-work (fridge and oven shelves, wire baskets, fence panels, bed frames and bases, chicken wire, aviary mesh, pig/dog wire and other wire mesh products in small or large quantities)
 - reinforcing mesh and rods, trench mesh
 - pallets and packaging crates
 - shipping containers, ex-transport carriages, old cars, trailers and caravans
 - mirrors
 - bottles (glass and plastic)
 - ceramics and flower pots
 - car & truck tyres, windscreens, panels and seats
 - machinery parts
 - drums and cans
 - palings and weatherboards
 - reclaimed concrete
- typical permaculture structures, such as
 - garden structures and features
 - fences and trellising
 - animal housing and shelters
 - seating and garden walls
 - retaining walls and small dam walls (including observing all regulatory conditions)
 - sheds or small outbuildings (including observing all regulatory conditions)
 - components of houses or other buildings ((including observing all regulatory conditions and work with professionals on larger structures)
- the correct use of hand and power tools and other work health and safety requirements associated with installing structures and features
- techniques for working with reclaimed materials such as de-nailing, stripping old paint, dressing timber
- WHS considerations associated with recycled materials such as identification of lead paint, broken glass, rusty metal, chemically treated materials

- comparative environmental implications associated with excavation and construction activity
- safe lifting and transporting techniques
- appropriate use of personal protective clothing and equipment (PPE)
- appropriate use and installation of safety signs and barriers
- site access points
- implication of alteration to water flow during and after construction

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER318 Plan propagation activities for a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan propagation activities for a permaculture system. It requires the application of permaculture principles, seasonal propagation opportunities, organic principles and plant growth science.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Research propagation requirements for the permaculture system	1.1 Assess propagation needs according to garden needs or permaculture design 1.2 Consider opportunities for propagation from local area, such as seed banks, tree or shrub prunings, unusual varieties to be traded or varieties purchased for propagation 1.3 Determine numbers of new plants to be produced for the needs of the system and/or for swapping, selling or community needs
2. Develop the propagation plan	2.1 Prepare a propagation plan according to research undertaken 2.2 Ascertain best methods for species to be propagated and include them in the propagation plan 2.3 Construct a seasonal or monthly timeline or calendar to keep track of propagation requirements 2.4 Maintain the propagation plan as an active document through the seasons
3. Implementing the propagation plan	3.1 Consult the propagation plan when planning monthly activities 3.2 Clear space in the propagating area for the activity to be undertaken 3.3 Set up materials and equipment for propagation work 3.4 Organise propagules and apply pre-treatments if required 3.5 Create new plants in prepared containers or the garden area according to the propagation plan 3.6 Water, fertilise, label, mulch, stake and tie new plants as required
4. Maintaining propagated plants to end use	4.1 Maintain new plants by watering, sheltering and checking for pest or disease attack 4.2 Remove any new plants that have failed to thrive to avoid cross-contamination 4.3 Apply allowable organic treatments to new plants if required 4.4 Harden off new plants in a protected place before planting, selling or swapping
5. Maintain a healthy and orderly propagation area	5.1 Maintain tidiness and orderliness of propagating area 5.2 Store propagating materials, potting media and containers for future use 5.3 Remove any weed or moss growth regularly to ensure basic hygiene of the propagating and hardening off spaces

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER318 Plan propagation activities for a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research propagation requirements for the permaculture system
- develop a propagation plan
- implement a propagation plan
- maintain propagated plants to maturity or end use

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to propagation
 - using reclaimed or reused containers (suitably cleaned to avoid cross-contamination)
 - labelling systems using reclaimed materials
 - maintaining rare and unusual varieties
 - using edges and valuing the marginal – unusual plants in micro-climates
 - sharing and swapping to increase biodiversity and mutual wellbeing
 - preserving provenance of locally indigenous species
 - testing and trialling for new plants or resistant varieties
 - global food plant preservation, including seed saving
- propagation plan including such considerations as:
 - seasonal activities
 - seed saving
 - needs of the system for plants
 - mother plant location and frequency of use

- schedules and timelines
- principles of sustainable horticultural practices
- propagation techniques, such as:
 - cuttings – softwood, hardwood, semi-hardwood, root and tip
 - layering – stool, aerial and runner
 - division
 - grafting – whip and tongue, saddle, wedge, approach and bench
 - budding – shield and patch
 - seed sowing
- potting media suitable for propagation in a garden setting, such as
 - compost and worm casting mixes
 - sieved and graded sands
 - blends used for different purposes or different times of the year
 - sphagnum moss
 - water (hydroponics or aquaponics)
- plant growth, development and nutrition
- botany and physiology
- maintaining moisture levels in simple systems without causing disease
- systems for protecting new plants and seedlings, such as:
 - polyhouse or shade-house systems, including hoop systems on garden beds
 - systems using reclaimed materials, such as bag-and-frame cloches, bottle protectors for seedlings, tyre stacks, birdcages and wire baskets
 - glass houses
 - shade houses
 - naturally occurring or planned microclimates
- minimal environmental impact waste disposal and composting systems which destroy pathogens

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER319 Test, improve and maintain healthy soil in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to test, improve and maintain healthy soil in a permaculture system. It requires knowledge of soils and their components, testing methods, nutrient action and soil improvement systems.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Take soil samples from a number of places in the permaculture system	1.1 Obtain samples from several places over a site 1.2 Prepare the samples for testing 1.3 Label containers accurately with location identifier, date, soil test and tester
2. Test soil for range of plant and structural needs	2.1 Carry out soil tests for texture, organic matter, structure, pH, water infiltration and compaction 2.2 Have samples tested by a laboratory for nutrient levels and deficiencies if concerned or if particular requirements exist for the crops and livestock in the permaculture system 2.3 Re-test in a different season or soil temperature
3. Analyse soil improvement requirements	3.1 Determine requirements for soil improvement from tests carried out 3.2 Determine requirements for soil improvement from the laboratory test results, if taken 3.3 Identify soil biota in soil and ascertain how to optimise biodiversity 3.4 Research soil improvement options, including discussing with neighbours and experienced practitioners appropriate options for soil improvement
4. Implementing soil improvement plan	4.1 Develop a plan for soil improvement over time and vary it depending on the location on the site and the crop or livestock being grown 4.2 Calculate required quantities of allowable additives and supplements to improve soil health 4.3 Use products at recommended rates and according to any existing certification system applying to the land 4.4 Protect soil biota present in soil, including using appropriate mulches for perennial and annual plants
5. Maintain health of soil according to organic guidelines	5.1 Observe changes over time and record using tables and photographic records 5.2 Avoid practices that can cause deterioration in soil health such as over- or under- watering, over-grazing, over-cultivating and off-contour ploughing 5.3 Follow organic and permaculture guidelines to increase soil carbon

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER319 Test, improve and maintain healthy soil in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- take soil samples
- test soils
- analyse soil improvement requirements
- implement soil improvement plan according to permaculture guidelines
- maintain soil health

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to soil health and plant nutrition
 - working with natural soils rather than importing soil
 - soil as an ecosystem
 - soil as biomass and carbon capture and storage
- principles of sustainable horticultural practices
- how to read a laboratory soil test
- soil testing techniques, such as:
 - jar test for soil structure
 - ribbon test and ball test for soil texture
 - infiltration or permeability test
 - pH testing
 - compaction test
 - non-wetting soil test

- air-filled porosity test
- worm count
- microscopic biota in soils
- plant nutrient uptake and mineral action
- soil chemistry
- science of composting
- fungal and bacterial action and mulches appropriate to different plants
- additives to improve soils, such as
 - compost and worm castings compost teas
 - biochar
 - green manures
 - organic mulch
 - manures/animal bedding materials
 - leaf mould
 - plantings – green manures, nurse plants
 - companion planting
 - chop and drop
 - nutrient trapping systems
 - greywater use
 - organically certified products
 - amendments that may include rock dust, gypsum, dolomite, lime, zircon, sulphur and other minerals
- plant growth and development
- soil life, including microscopic life
- methods of waste disposal causing minimal impact on the environment
- the effects of conventional agricultural chemicals on soils and soil ecosystems

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER320 Manage plant pests, diseases and disorders in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage plant pests, diseases and disorders in a permaculture system. It requires knowledge of healthy permaculture systems and the pests, diseases and disorders that might need management. It includes focussing on solutions in an integrated design, rather than reacting to infestations.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify existing and potential pests, diseases and disorders in the permaculture system	1.1 Using observation of plants in the permaculture system, identify existing or potential for pest attack, disease or disorders 1.2 Using climatic data and weather observations, identify existing or potential for pest attack, disease or disorders 1.3 Monitor balances within the system such as pest and predator balances 1.4 Maintain a record of observations
2. Research pest, disease and disorder prevention methods	2.1 Research pests, diseases and disorders using both primary and secondary sources 2.2 Consult widely and use both electronic and conventional reference material 2.3 Establish prevention methods for maintaining a healthy balance 2.4 Research possible negative effects of treatments on other elements of the permaculture system
3. Develop a pest and disease management program	3.1 Develop a plan based on the research conducted and the observations made 3.2 Include information about weather conditions, time of year, cycle of pests or disease vectors in the management program
4. Implement the pest and disease management program	4.1 Provide solutions that address the interactions of many elements in the system rather than spot treating outbreaks 4.2 Avoid practices that spread disease, such as propagating using diseased plants, or using un-sanitised tools when pruning orchard trees 4.3 Provide habitat and microclimate conditions for useful insects, plants, birds and animals 4.4 Carry out permaculture practices that minimise the risk of pest and disease problems 4.5 Update the management program regularly so that it is active and useful to the permaculture system
5. Monitor and record the management of plant pests, diseases and disorders over time	5.1 Keep records of pest and disease control operations, noting weather conditions and times of year 5.2 Use records to enable predictions of or responses to possible disease and pest recurrences in similar weather or times of the year 5.3 Maintain records over time to build a history of the permaculture system

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER320 Manage plant pests, diseases and disorders in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify existing and potential pests, diseases and disorders in the system
- research methods of managing pests, diseases and disorders in a permaculture system
- develop a pest and disease management plan
- implement a pest and disease management plan
- monitor pest and disease managements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to managing plant pests, diseases and disorders
- principles of maintaining healthy permaculture crops, such as:
 - companion planting
 - increasing diversity
 - providing habitat and food for pests' natural predators
 - healthy, balanced soil
 - minimal use of soluble fertilisers
- allowable control methods in organic systems, such as
 - deterrent organic sprays
 - pheromone traps and lures
 - predatory and/or parasitic insects, mites and other organisms as part of biological control
 - nutrient additives

- crop rotation
- covers and netting
- BT (*Bacillus thuringiensis*) and other action-specific micro-organisms
- symptoms of disease and disorders in plants
- care needed to avoid transferring infections (such as through grafting and pruning practices)
- stages of development of pest organisms and signs of pest presence on plants and animals
- planting for insectivorous birds, lizards, frogs and microbats
- fungal, bacterial and viral infestations and their symptoms
- disease vectors and plants that harbor them
- companion planting
- succession planting

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER321 Demonstrate permaculture practices to small groups of learners

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to demonstrate permaculture practices to small groups of learners. Demonstration of techniques related to animals, plants, structures, energy, resources and community development are covered in a non-threatening and experiential setting. It is intended for school teachers and those who demonstrate permaculture skills to small groups of learners in different situations and contexts.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify audience for demonstration	1.1 Identify characteristics of audience to cater to their needs 1.2 Confirm numbers and, if possible, names of individuals 1.3 Identify time allowed for demonstration 1.4 Identify location and facilities where demonstration will take place
2. Identify topic for demonstration	2.1 Identify topic/s for demonstration 2.2 Research topic/s and clarify best demonstration location and facilities 2.3 Develop order of demonstration, from patterns to details
3. Develop demonstration methods and resources	3.1 Develop participatory planning activities for the sessions 3.2 Develop participatory learning activities for each topic 3.3 Prepare materials and equipment, including enough of everything for the audience size 3.4 Develop review and revision activities for longer sessions 3.5 Confirm all materials, tools and equipment is present and in working order, including safety equipment for the demonstration
4. Conduct demonstration	4.1 Conduct a site and safety briefing 4.2 Conduct a group introduction session for names and stories of participants 4.3 Clarify the planning of sessions for the participants 4.4 Clarify each learning activity and then conduct it 4.5 Conduct review and revision activities as required 4.6 Close the session and clean up in a participatory way that includes session participants
5. Take feed-back from audience	5.1 Conduct a review of the demonstration/s 5.2 Collect feed-back information and address any issues identified 5.3 Use feed-back in future demonstration planning

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER321 Demonstrate permaculture practices to small groups of learners

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify audience for demonstration
- identify topic/s for demonstration
- prepare resources for demonstration
- conduct demonstration
- collect and use feed-back to address immediate issues or for future demonstration planning

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and ethics
- Permaculture practices, such as:
 - minimising effort for maximum effect
 - multiple uses for each element in the system
 - using more than one way to provide important functions
 - re-using and valuing resources and energy
 - encouraging productivity of a permaculture system
 - seeing solutions, not problems
 - using vertical space and other edges and connections
 - preventing waste and loss of resources from a permaculture system
- participatory planning and learning activities for topics such as:
 - methods of design
 - pattern understanding and integrated systems

- animal and plant species selection methods
- ecological principles
- climatic and geological influences
- water in the system
- soils
- earthworks for capturing nutrients
- permaculture structures and features
- different appropriate technologies that can be used
- resource use and reuse
- energy

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER401 Provide advice on permaculture principles and practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide advice on permaculture principles and practices. It requires knowledge of permaculture principles and practices. It also requires skills in identifying client needs and requirements, providing advice on permaculture practices and in researching and relating detailed permaculture information and advice to clients.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to

Element	Performance criteria
essential outcomes.	demonstrate achievement of the element.
1. Identify client requirements for advice	1.1 Initiate contact with the client to determine the scope and type of the permaculture advice required 1.2 Clarify the needs and requirements of the client 1.3 Determine client's resources 1.4 Determine the needs and potential of the site or project
2. Provide information on permaculture	2.1 Provide the client with a written brief outlining the requirements for advice 2.2 Supply the client with information on permaculture design principles and practices 2.3 Respond to client requests for clarification or expansion of information 2.4 Outline relevant literature on permaculture and other sources of information to client 2.5 Record information given to the client
3. Undertake permaculture research	3.1 Research specific applications of permaculture principles and practices related to client needs and requirements 3.2 Determine research strategies and sources 3.3 Research and investigate latest developments in permaculture principles and practices
4. Provide advice on permaculture principles and practices	4.1 Prepare advisory documentation or presentation based on the client brief 4.2 Explain contents of advisory documentation to the client 4.3 Include a statement of limitations of advice 4.4 Respond to client requests for clarification or expansion of permaculture principles and practices 4.5 Take feedback from client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124PPP01B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER401 Provide advice on permaculture principles and practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify client needs and requirements for information and advice
- propose a selection of permaculture practices and strategies that best suit the needs and resources of the client and the potential of the site
- provide information on permaculture principles
- provide advice on permaculture practices and strategies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles of permaculture based on 12 principles in David Holmgren *Principles and Pathways Beyond Sustainability* and the work of Mollison and Slay
- ethics of permaculture: care for the earth, care for all people, fair share of surpluses, setting limits to biophysical growth (population, resource use and waste)
- permaculture practices and strategies, such as
 - personal, household, community and bioregional strategies
 - sustainable agriculture, horticulture, aquaculture and organic gardening
 - economic alternatives that support sustainable living
 - low energy and low embodied energy building and manufacturing
 - appropriate technology
 - restoration ecology and maintenance of biodiversity
 - sustainable community development, bioregional development and relocalisation
 - Reuse and return of products in manufacturing cycle and waste utilisation, waste water, grey water, sewage and resource treatment for re-use and recycling

- Sustainability education
- elements of permaculture systems
- functions of permaculture systems
- permaculture design techniques
- innovation in plant, animal and technology selection, use and performance
- recent practice in bioregional community development and local energy descent planning
- client communication techniques, record keeping and listening techniques
- preparation of reports and presentations for clients
- uses of Statements of Limitation in the giving of advice

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER402 Design a rural permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design a rural permaculture system. It requires the ability to negotiate with clients to develop a permaculture design brief, undertake a site analysis, develop design concepts and produce final design documentation.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Develop a design brief for a rural permaculture system	1.1 Initiate or respond to contact with the client 1.2 Consult with the client to establish purpose, needs and requirements of design 1.3 Develop a design brief in consultation 1.4 Negotiate cost structures and timelines
2. Undertake design analysis	2.1 Obtain existing maps, geospatial data and aerial photographs of property 2.2 Survey area included in Zones 1, 2 and 3 using suitable survey tools and equipment 2.3 Prepare a base plan 2.4 Record site assessment data on the base plan 2.5 Carry out bioregional analysis of the site 2.6 Carry out research into potential permaculture design elements 2.7 Choose permaculture design elements 2.8 Revise brief with client in relation to completed research and analysis
3. Prepare a design concept	3.1 Evaluate and determine a permaculture system concept 3.2 Prepare conceptual design drawings to illustrate conceptual themes and patterns informing the location and layout of proposed design elements 3.3 Develop and compile a bill of quantities 3.4 Prepare a list of plant and animal species and varieties suitable for the chosen concept 3.5 Prepare a preliminary budget for the conceptual design 3.6 Present the concept plan in a graphic style 3.7 Consult the client and agree on options and approaches for design development 3.8 Review and revise concepts, elements and the design brief after taking feedback from the client
4. Produce final design	4.1 Design the rural permaculture system in accordance with the design brief, research, analysis, chosen elements and concepts 4.2 Produce detailed rural permaculture design documents 4.3 Present design plans, drawings and documents to the client 4.4 Take feedback from the client and revise or modify the design as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124DES02B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER402 Design a rural permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a design brief for a rural permaculture system
- draw permaculture and landscape plans
- identify rural permaculture design solutions
- develop permaculture system concepts
- develop planting schedules, budget and bills of quantity
- develop a final design
- present design to client

Knowledge Evidence

The candidate must demonstrate knowledge of:

- elements of rural permaculture design
 - representation of up to 5 zones
 - detailed representation of Zones 1 to 3
 - sector analysis
 - bioregional analysis
 - superimposing of design over commercial aerial photograph or other geospatial representation
- principles of permaculture
- strategies in rural permaculture design, such as:
 - land shaping including contour ploughing, swaling, keyline dam systems, berms and terraces
 - integrated plant and animal systems that suit the bioregion and the land

- natural system preservation and incorporation into overall design
- soil and water preservation
- forest ecology and recharge plantings for maximum water and nutrient cycling
- innovative agricultural systems such as cell grazing, inter-cropping, commons and food forests
- preservation of old and rare breeds of animals
- biodiversity and habitat preservation and enhancement strategies
- design brief
 - statement of scope of design
 - statement of client needs and requirements
 - listing of project elements
 - listing of assessable tasks
 - options for dealing with client needs and requirements
- design analysis and research
 - investigation of permaculture books and publications, online material, audio and video material, maps, plans, charts and tables
 - searches in libraries and databases
 - viewing maps
 - searching geospatial data
 - talking to people in the local area or neighbours
- plan interpretation and map reading
- site analysis
 - initial on-site estimations of soil type, pH, texture
 - topography
 - aspect
 - zone and sectors planning
 - existing vegetation
 - climatic factors
 - indicator species or other landscape-reading notes
- site surveying methods and tools
 - surveying instruments for taking vertical measurements on site
 - surveying instruments for measuring angles on site
 - surveying instruments for measuring distance and horizontal measurements on site
- design concept, such as:
 - preliminary conceptual sketches
 - bubble diagrams
 - preliminary plan, section and elevation design drawings
 - use of design drawing and drafting conventions
 - presentable and legible design drawings for client use
- rural permaculture design

- integration of brief requirements, analytical information and conceptual planning
- rational justification for placement of design elements
- integration of elements to produce an efficient and functional rural permaculture system
- conventional design symbols and those to convey permaculture elements
- design drafting and drawing conventions
- plant and animal selection
- final design
 - rendered plan, elevation and section drawings to scale
 - use of design drawing and drafting conventions
 - use of consistent graphic style
 - supporting legends and keys of elements
 - supporting materials lists, tables, bills of quantity, timelines, installation plans and management plans
 - construction detail drawings
- methods of design
 - zone and sector planning
 - slope planning
 - patterns in space and time

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER403 Design an urban permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design an urban system. It requires the ability to negotiate with clients to develop a permaculture design brief, undertake site analysis, develop design concepts and produce final design documentation.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Develop a design brief for an urban permaculture system	1.1 Initiate or respond to contact with the client when appropriate 1.2 Consult with the client to establish purpose, needs and requirements of design 1.3 Develop a design brief for an urban permaculture system in consultation with the client 1.4 Negotiate cost structures and timelines with the client
2. Undertake design analysis	2.1 Obtain existing maps, geospatial data and aerial photographs of property 2.2 Survey area included in Zones 1 and (if present) 2 to provide information not on existing maps using suitable survey tools and equipment 2.3 Prepare a site plan 2.4 Record site assessment on the site plan 2.5 Undertake bioregional analysis of the site 2.6 Undertake research of potential permaculture design elements 2.7 Choose appropriate permaculture design elements 2.8 Revise brief with client using completed research and analysis
3. Prepare a design concept	3.1 Determine an appropriate permaculture system concept 3.2 Prepare conceptual design drawings to illustrate conceptual themes and patterns informing the location and layout of proposed design elements 3.3 Compile a bill of quantities 3.4 Prepare a list of plant and animal species and varieties suitable for the chosen concept 3.5 Prepare a preliminary budget for conceptual design 3.6 Present the concept plan in a consistent graphic style 3.7 Consult the client and agree on options and approaches for design development 3.8 Review and revise concepts, elements and the design brief after taking feedback from client
4. Produce final design	4.1 Design an urban permaculture system based on the design brief, research, analysis, chosen elements and concepts 4.2 Produce detailed urban permaculture design documents 4.3 Present design plans, drawings and documents to the client 4.4 Take feedback from the client and revise or modify design as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124DES03B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER403 Design an urban permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- draw permaculture and landscape plans
- identify urban permaculture design solutions
- analyse zones and sectors of site
- develop design concepts
- develop detail and construction drawings
- develop planting schedules, budget and bill of quantities
- develop a final design
- present a design to a client

Knowledge Evidence

The candidate must demonstrate knowledge of:

- elements of urban permaculture design
 - Zones 1 and 2, as the furthest areas represented on the plan (otherwise it is a rural design)
 - needs supplied by other zones, even if they are supplied off site
 - sector analysis
 - bioregional analysis
 - design which may utilise existing architects' drawings or local maps and plans
- principles of permaculture
- strategies in urban permaculture design
- edible landscapes and aesthetics in design
- public landscapes and community garden design

- design brief
 - statement of scope of design
 - statement of client needs and requirements
 - list of project elements
 - list of assessable tasks
 - options for dealing with client needs and requirements
- design analysis and research techniques
- plan interpretation and map reading
- site analysis
 - onsite measurement of site boundaries
 - mapping of boundaries to scale to a plan drawing
 - mapping of contour lines to a scale plan drawing
 - measurement and location of existing infrastructure and features on site
 - mapping of existing infrastructure and features to a scale plan drawing
 - measuring and plotting location of services (power, water, sewer, gas)
 - measuring and plotting location of meters or access points
- site surveying methods and tools
 - surveying instruments for taking vertical measurements on site
 - surveying instruments for measuring angles on site
 - surveying instruments for measuring distance and horizontal measurements on site
- design concepts
 - preliminary conceptual sketches
 - bubble diagrams
 - preliminary plans, sections and elevation design drawings
 - use of design drawing and drafting conventions
- presentable and legible design drawings for client use, such as:
 - domestic systems for urban and suburban properties
 - rooftop, balcony and courtyard gardens
 - public landscapes such as streets, parks, car parks, commercial premises, industrial estates and community centres
 - school gardens and learnscapes
 - community gardens and city farms
 - Community Supported Agriculture systems, urban market gardens and peri-urban small holdings
 - urban forestry
- conventional design symbols and those to convey permaculture elements
- design drafting and drawing conventions
- plant and animal selection
- final design
 - rendered plan, elevation and section drawings to scale

- use of design drawing and drafting conventions
- use of consistent graphic style
- supporting legends and keys of elements
- supporting materials lists, tables, bills of quantity, timelines, installation plans and management plans
- construction detail drawing
- methods of design
 - zone and sector planning
 - slope planning
 - patterns in space and time

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER404 Plan and implement permaculture works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and implement permaculture works through preliminary planning, scope of works, work health and safety policies and procedures, equipment and materials, works schedules, specifications and environmental impacts. Activities also include organising and directing works implementation.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to

Element	Performance criteria
essential outcomes.	demonstrate achievement of the element.
1. Prepare for permaculture works	1.1 Confirm and verify client preferences and contract requirements 1.2 Verify scope of works 1.3 Verify specific statutory obligations 1.4 Conduct a site visit to confirm details of permaculture works plan 1.5 Identify safety hazards and work health and safety obligations associated with the permaculture works 1.6 Verify the availability, quantity and costs of plants and other materials listed in the project schedules 1.7 Verify resources and tools and equipment required for permaculture works 1.8 Confirm availability with suppliers, contractors and appropriate personnel 1.9 Verify site access and establishment issues and follow plan for environmental impacts
2. Follow a permaculture works plan	2.1 Follow safety plan for permaculture works 2.2 List tools and materials required, including amounts and their sources 2.3 Follow the staged program of works to provide a sequential allocation of material resources and works tasks with specifications to meet determined project timelines 2.4 Determine the establishment period and maintenance period of works 2.5 Incorporate seasonal factors and impacts in the staging strategy to allow for planting supply and care, wet day access, machinery use, fire hazards and establishment period
3. Implement the permaculture works	3.1 Take delivery of materials and equipment 3.2 Assemble human resources on site and allocate team leaders 3.3 Undertake works briefing and safety briefing 3.4 Supervise permaculture works 3.5 Complete permaculture works according to the permaculture works plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124BUI04B

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER404 Plan and implement permaculture works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- write reports for supervisors, clients and contractors
- assess a site for opportunities and constraints associated with implementation of permaculture works
- implement a staged permaculture works plan
- determine tools and equipment required
- calculate amounts of materials required

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices
- permaculture works, such as
 - implementing permaculture designs
 - following a permaculture works plan as part of a permaculture project
 - constructing permaculture structures and features
 - implementing permaculture earthworks
- practical understanding of the environmental issues associated with undertaking permaculture works, such as:
 - use of materials that come from sustainable sources
 - duty of care in conserving site's natural values
 - work practices
 - the use and movement of machinery, storage of materials, removal of weeds and movement of soil and other materials into, across and beyond the site

- principles of ecology, including specific plant and animal relationships and habitat requirements
- statutory compliance and obligations, such as:
 - compliance with legislation, ordinances, regulations or bylaws relating to the works or the work site
 - Site responsibilities include OHS, industrial relations and equal opportunity and employment
- site evaluation techniques including methods of analysing soils, waterways and their condition
- practical understanding of the advantages and disadvantages of a range of permaculture procedures
- selection and use of appropriate combinations of machinery and tools
- work health and safety hazards associated with undertaking permaculture works and the controls necessary to remove or minimise risks associated with them
- contract documentation including specifications, plans of permaculture works, services, supplies and surveyors documents
- scope of works determination
- works' breakdown into tasks
- scheduling and time line generation
- task specifications and evaluation

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER405 Select appropriate technology for a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to select appropriate technologies for permaculture systems. It includes identification, research, evaluation, selection and communication of sustainable technology for permaculture applications.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Investigate appropriate technology for permaculture systems	1.1 Review design needs and requirements for potential applications of appropriate technology 1.2 Identify relevant sources and locations of information on appropriate technology 1.3 Determine required scale of appropriate technology 1.4 Identify permaculture principles and practices relevant to the appropriate technology
2. Research appropriate technology for permaculture systems	2.1 Research potential appropriate technology options for the project 2.2 Determine unique characteristics of different appropriate technology options 2.3 Research applications of alternative technologies 2.4 Research requirements for integrating new technology with existing permaculture systems 2.5 Determine capital cost of installation 2.6 Determine training and maintenance required for operation of the different options
3. Evaluate appropriate technology for permaculture systems	3.1 Evaluate potential for integrating new appropriate technologies in the permaculture system design 3.2 Compare potential alternative technologies against cost and efficiency criteria 3.3 Evaluate risks and obstacles of potential appropriate technology options
4. Select appropriate technology for permaculture systems	4.1 Select suitable appropriate technology for the design use 4.2 Determine availability of appropriate technology 4.3 Confirm cost and mode of delivery
5. Communicate appropriate technology for permaculture systems	5.1 Report on research, evaluation and selection of appropriate technology 5.2 Communicate location and detail of selected appropriate technology option on the permaculture design using appropriate drafting and drawing techniques 5.3 Explain appropriate technology and reason for selection to client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124BUI05B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER405 Select appropriate technology for a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- investigate appropriate technologies for permaculture systems
- evaluate permaculture systems capabilities in relation to the use of new technologies
- evaluate suitability of new technology solutions to the permaculture application
- communicate information and options

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and ethics
- appropriate technologies, such as:
 - technologies involving solar, wind, wood, biomass and water driven equipment for generating power, performing pumping duties, heating hot water and biochar production
 - alternative and resource conserving technologies such as rainwater collection, waste water treatment, composting toilets, cooking stoves, cob ovens, space heating and cooling, household appliances, pedal-powered appliances, enterprise plant and equipment
 - building technology such as natural and resource conserving building materials and techniques including passive solar design strategies and features
 - tools and implements employed in gardening and farming operations such as electric fencing, hand vs. power tools, shredders, mulching machines and use of animal power
 - lifestyle choices and behavioural adjustments to conserve energy and resources to meet sustainability objectives

- smaller scale and lower cost solutions such as maintaining and riding a bicycle, using a refillable pen, using a razor with replaceable blades and substituting other non-disposable items where disposables are normally used
- low energy devices
- ingenuity applied to complex problems to develop simple solutions such as solar powered street lighting
- criteria for determining appropriateness of energy and resource conservation technologies
- principles of passive solar design, embodied energy and carbon emission reduction
- innovations in energy and resource conservation technologies
- role of appropriate technology in energy descent planning and greenhouse gas emission reduction
- types of appropriate technology systems commonly available and applied to the design of energy and resource conscious houses, farms, offices and community projects
- the benefits from combining a number of different appropriate technologies and the limitations of each different technology
- design of systems integrating appropriate technologies

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER406 Identify and analyse bioregional characteristics and resources

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to research, extract and provide information on bioregional characteristics and resources. It requires the ability to process a request for information on bioregional characteristics and resources, identify information sources, organise self and others, ensure information meets request, prepare and finalise reports.

For indigenous contexts, the delivery and assessment against this competency standard must comply with community protocols and guidelines and be supported by elders and custodians of country.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify sources of information on bioregional characteristics and resources	1.1 Identify the need, or respond to a request, for bioregional analysis 1.2 Research relevant sources and locations of information about the bioregion 1.3 Access identified sources and information
2. Organise self or others to obtain information on bioregional characteristics and resources	2.1 Locate information relevant to the particular request 2.2 Coordinate and monitor team work to obtain required information 2.3 Discuss resolutions to problems accessing information with designated person and implement where appropriate
3. Ensure information meets request	3.1 Assess information for its validity and reliability 3.2 Seek clarification and assistance from client group or individual where information is unclear or difficult to understand 3.3 Obtain additional information where available information is inadequate 3.4 Combine different types of information where appropriate, to provide a response to the request
4. Report on bioregional analysis	4.1 Develop a report format, plan and structure 4.2 Compile report using clear and concise language, and edit as appropriate 4.3 Produce report in format required by client
5. Finalise reporting process	5.1 Arrange to review and sign off on report with designated person where required 5.2 Present report to community group or client 5.3 Make a record of report

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124BIO06C.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER406 Identify and analyse bioregional characteristics and resources

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify sources of information on bioregional characteristics and resources
- organise self or others to extract information on bioregional characteristics and resources
- ensure information meets requests
- employ appropriate media to present a report
- prepare, finalise and present a report

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and ethics
- bioregional characteristics and resources, such as:
 - a bioregion as a land and water territory whose limits are defined not by political boundaries, but by the geographical limits of human communities and ecological systems
 - a town or a segment of a city as typical as the main node of a bioregion, as was the pattern of most settlement and economic development until the 20th century
 - water catchment as one of the key identifiers of the bioregion, with the water catchment, storage, use/treatment of effluent and the water quality of rivers and creeks as essential to permaculture design
 - The Ecological Vegetation Class (EVC) of the area or the population of endemic species, as well as the suitability of any other species to grow or breed in the area
 - history, social make-up, land use and population information that go towards understanding an area

- bioregional resources, including the human and social capital or culture of an area, its capacity to produce its own needs and supply surplus to others and its resilience in responding to change or catastrophe
- the natural (biophysical), built, social and cultural elements of the area, including water supply and catchment management systems, transport systems, local exchange trading systems (LETS) and cooperatives, food supply systems, fuel and fibre supply systems
- data held by local councils, community groups, historical societies, individuals and organisations that adds value to a study of the bioregion
- the following bioregional issues: transition initiatives, local food and water security and bioregional self-reliance regarding other components of daily life from local sources as opposed to importing basic needs from long distances at a high cost to the environment
- embodied energy, including how to measure it and compare it with energy output over the life of the item, and consideration of the waste disposal of an item as part of its energy 'cost'
- types of information sources
- methods and means of accessing data
- methods of presenting and formatting information
- means of validating information

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER407 Design harvesting and storage systems for permaculture products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design harvesting and storage systems for products to meet year round supply of fresh and stored produce. It requires the ability to determine harvesting and storage system requirements, identify requirements for maintaining optimum condition of permaculture products and preparing a harvesting and storage plan.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to

Element	Performance criteria
essential outcomes.	demonstrate achievement of the element.
1. Determine harvesting and storage system requirements	1.1 Define the range and type of permaculture products to be harvested and stored and negotiate needs and budgets with client 1.2 Determine seasonal requirements for products 1.3 Define optimum harvesting, processing and storage techniques for the products 1.4 Determine opportunities and constraints in respect to site location, cost and layout of storage facilities
2. Identify requirements for maintaining optimum condition of permaculture products	2.1 Carry out research to determine maintenance requirements of products 2.2 Describe treatment requirements for products 2.3 Determine appropriate preservation techniques and processes for products 2.4 Describe preparation requirements for storage of products
3. Prepare harvesting and storage plan	3.1 Describe growing and harvesting schedule and quantities in the harvest and storage plan 3.2 Set out layout of storage area in the harvest and storage plan 3.3 Record the requirements for treatment, preparation and preservation of products in the harvest and storage plan
4. Complete plan for harvesting and storage system	4.1 Evaluate training needs for the harvesting and storage system 4.2 Present the harvesting and storage system plan to client or team

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124RES07B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER407 Design harvesting and storage systems for permaculture products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine harvesting, post-harvest and storage system requirements
- identify requirements for maintaining optimum condition of products from a permaculture system
- prepare a harvesting and storage plan
- communicate harvesting and storage plan to clients and others

Knowledge Evidence

The candidate must demonstrate knowledge of:

- products from a permaculture system commonly harvested and stored, such as:
 - vegetables where the whole plant is harvested
 - vegetables where part of the plant is harvested
 - perennial plants where fruit/nuts are harvested
 - forests where timber, fuel and fibre crops are selectively removed
 - forests where a range of other medicinal and craft crops are harvested
 - harvest from wild systems (e.g. fruit, nuts, fungi and seeds), where a clear abundance of product has been identified
 - animal products such as eggs, feathers, hides, bone, milk and meat
 - Products may also include those derived from insects (such as honey)
 - fish (such as roe), and other organisms, such as fungi, algae and moss
- design systems for meeting year-round supplies of fresh and stored produce, such as:
 - growing requirements and crop regulation strategies calendar or seasonal chart with planting times of crops

- selection of early, mid- and late season varieties to extend harvest
- number of plants and area to be planted
- crop regulation and maintenance program involving tipping, mounding, thinning, staking
- sequential planting and/or harvesting schedules
- climatic conditions for harvesting crop such as appropriate time of day
- harvest and post-harvest factors influencing plant metabolism and quality
- post-harvest treatment and preparation techniques, such as:
 - flow chart of harvest, treatment, preservation and storage process
 - harvest and post-harvest treatment timelines and schedules
 - design or plans of processing and storage area
 - design of processing technology or equipment such as solar food dryer
 - lists of materials, tools, equipment and ingredients
 - manuals and operating instructions for equipment
 - recipes and instructions
 - anticipated shelf-life of product
 - labelling and recording systems
 - work health and safety, food safety, hygiene and other relevant enterprise and work practices
- preservation methods and processes for products from a permaculture system, such as:
 - drying and dehydrating
 - bottling
 - cheese-making
 - extraction (honey, cold-pressed and distilled oils)
 - culturing or fermenting
 - preserving with vinegar, oil, brine, sugar, salt and other natural agents
 - air exclusion (sealing with fats, wax, vacuum seal)
 - cellaring and root-cellaring
 - other processes that use minimal fossil fuel energy while maintaining the integrity of the harvested crop
- technologies used in crop processing, treatment, preservation and storage systems
- design of storage areas, such as:
 - buildings such as sheds
 - cupboards
 - shelving and racks
 - work benches
 - store rooms
 - pantry
 - cool store
 - cellar

- root cellar
- bins and containers
- developing planting and harvesting schedules for products from a permaculture system
- identifying training needs for harvest and storage workers, such as:
 - work health and safety, and other relevant enterprise and work practices
 - food safety and hygiene standards
 - appropriate clothing and personal protective equipment (PPE)
 - harvest and post-harvest handling, processing and storage practices
 - food preserving techniques
 - operation and maintenance of tools and equipment
 - reporting, recording and labelling procedures
- preparing plans and reports
- food safety, health and hygiene requirements for preservation and storage of products for human consumption

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER408 Implement and monitor animal health and welfare programs for a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit provides the skills and knowledge to implement and monitor animal health and welfare programs for a permaculture system. It requires the ability to provide information to clients and animal owners about animal welfare, facilitate the participation of others in complying with animal health and welfare guidelines, implement and monitor enterprise programs for animal care, deal with animal emergencies and maintain animal health records.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Provide information about animal care in a permaculture system	1.1 Accurately and clearly explain to the client relevant permaculture practices towards animal health and welfare 1.2 Provide readily accessible information on animal care and maintenance and accurately and clearly explain this to clients and animal owners 1.3 Regularly provide information about identified animal health and welfare requirements and accurately and clearly explain this to clients and animal owners
2. Facilitate the participation of workers in animal care and maintenance in a permaculture system	2.1 Follow the permaculture plan for animal care and maintenance 2.2 Monitor animal health and welfare compliance with workers and others 2.3 Ensure adequate resource allocation and monitor to ensure effective animal health and welfare programs continue
3. Implement and monitor animal health and welfare procedures in a permaculture system	3.1 Identify and report existing and potential hazards to animal health and welfare so that effective remedial measures are implemented 3.2 Carry out animal health and welfare induction and training for workers and others 3.3 Establish strategies to maintain routines for animal health and welfare in the permaculture system 3.4 Monitor the procedures for animal health and welfare implemented by workers and others, to ensure consistency and adherence to the permaculture plan
4. Implement workplace procedures for dealing with animal health and welfare emergencies	4.1 Implement workplace procedures for dealing with animal health and welfare emergencies where necessary to ensure that prompt and effective control action is taken 4.2 Report animal health and welfare emergencies in accordance with established procedures 4.3 Implement measures to prevent recurrence and minimise risk of animal health and welfare emergencies
5. Implement and monitor enterprise procedures for maintaining animal health and welfare records	5.1 Complete animal health and welfare records accurately and legibly in accordance with permaculture procedures and legislative requirements 5.2 Identify potential hazards to animal health and welfare by using aggregate information from animal health and welfare records 5.3 Provide regular training to workers and others so that records are understood and used for the health and welfare of animals

Element	Performance criteria
	in the permaculture system

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124IPA08B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER408 Implement and monitor animal health and welfare programs for a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- provide information to clients, workers or animal owners about animal health and welfare
- implement animal health and welfare procedures
- monitor animal health and welfare procedures performed by others
- maintain animal health and welfare records
- provide training in understanding and using records for the health and welfare of animals in a permaculture system

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles, ethics and practices relating to integrated animal systems, such as:
 - minimising effort for maximum effect
 - multiple uses for each element in the system
 - using more than one way to provide important functions
 - re-using and valuing resources and energy
 - animal welfare and freedom from cruelty as part of care for the earth
 - encouraging productivity of the system
 - seeing solutions not problems
 - preventing waste and loss of resources from the system
- animal health and welfare requirements, practices and procedures, such as:
 - maintenance of animal housing, enclosures and fencing, covering hygiene and welfare

- ensuring availability of suitable forage, fodder and supplementary feedstuffs, and adjusting stocking rates, ranging and rotation schedules to suit
- Coordinating the following integration of animal ranging and maintenance with plant production systems: ranging in orchard to manure trees, reducing weeds, controlling pests, eating windfall fruit, tractor systems, composting manures and housing litter and maintaining firebreaks
- researching, assessing, implementing and monitoring supplementary stock feed requirements, feeding quantities and schedules
- researching and applying organic alternatives for treating stock in compliance with organic certification authorities, which may include herbal and homoeopathic treatments, mineral and vitamin supplements and permitted medications
- developing appropriate handling procedures to reduce stress
- harvesting, sourcing and handling the following useable products: milking, collecting eggs
- providing range areas for shade and shelter from climatic extremes through appropriate planting, including forage and fodder plants.
- equipment, including feeders and waterers, and back-up systems and alarms in case of equipment failure.
- lighting
- ventilation including fresh air, dust filters, humidity, and noxious gases.
- temperature, including cooling and heating, extreme weather conditions
- protection from predators, vermin, fires and floods.
- food with diet containing adequate nutrients
- water, including sufficient drinkable water to meet livestock requirements and monitoring water quality.
- health and distress, with signs of ill-health or distress in animals (as evidenced by behavioural changes) including reduced food and water intake, reduced production, changes in the nature and level of their activity, abnormal condition or changed physical features.
- prevention of infectious disease and internal and external parasitism.
- transport of growing and adult livestock
- animal physiology
- animal emergencies, such as:
 - injury
 - disease
 - failure of feeding or watering systems
 - poisoning
 - tick fever
 - birthing difficulties
 - escapement from housing or enclosures
 - predator attack
 - natural disasters such as bushfire, flooding, severe storm, other extreme weather event

- relevant animal welfare legislation and codes of practice
- animal health and welfare records, such as:
 - farm livestock records
 - daily harvest/yield records (eggs, milk)
 - feeding schedules and rosters
 - rotation schedules and successional grazing regimes
 - accident and emergency reports
 - entries into data base or other management software
 - worker records and reports
 - emergency reports
 - animal morbidity
 - work procedures and practices
 - seasonal factors and weather records
 - questioning client and/or workers
 - observations from inspecting animal systems
 - operational practices such as bedding change rotation, cell grazing, alternating flocks
- industry animal health requirements
- legislative requirements, such as:
 - compliance with council ordinances
 - planning approval
 - licence from government agency
 - animal welfare legislation
 - workplace legislation and awards

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PER409 Manage a permaculture seed bank

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage a permaculture seed bank. It requires the ability to plan seed collection, implement seed collection and maintain a seed collection in storage. Managing a permaculture seed bank requires knowledge of plant biology, handling and extraction of seed, treatment and documentation, collecting ethics, protocols and legislative parameters and storage techniques.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to

Element	Performance criteria
essential outcomes.	demonstrate achievement of the element.
1. Plan seed collection for a permaculture seed bank	1.1 Analyse requirements for seed collecting, and interpret them for required seed characteristics and implementation issues 1.2 Identify opportunities for seed collection from field observation and liaison with other specialists in this field 1.3 Identify and mark on a plan suitable areas and plants for seed collection 1.4 Select method of seed collection appropriate to the geography of the local area, size and type of plants and available resources 1.5 Determine and document quantity of seed to be collected from each provenance 1.6 Liaise with relevant authorities or owners and seek approvals where required
2. Implement seed collection program	2.1 Coordinate and schedule people, materials and equipment required by the seed collection program 2.2 Identify and obtain any permits and approvals required for the seed collection 2.3 Identify the seed and complete the required documentation
3. Maintain a seed collection	3.1 Check the quantity, quality and provenances of the collected seed 3.2 Check and monitor the health of seed collected and take remedial action where required 3.3 Control pests and conditions detrimental to seed health 3.4 Dispose appropriately of seeds that are non-viable owing to age or pest attack 3.5 Supply true to type and appropriately labelled seed to others 3.6 Record up to date details of seeds held in storage

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124RES09B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER409 Manage a permaculture seed bank

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan seed collection
- implement a seed collection program
- maintain a seed collection

Knowledge Evidence

The candidate must demonstrate knowledge of:

- flowering biology of the target species
- biological signs which indicate that the seed crop is ready to be collected
- seed banks, such as:
 - community seed banks and networks
 - private seed collections
 - organic food production enterprises such as market gardens
 - community supported agriculture seed sources
 - community garden and city farm seed banks
 - supply of vegetative propagation for perennial plants
 - heritage and non-hybrid seed distributors
 - heritage and non-hybrid seed producers
 - permaculture plant and seed nurseries
 - community seed swaps
- methods of seed collection, such as:
 - hand-picking seeds or seed capsules

- harvesting whole plant
- collecting and ripening fruit
- collecting after felling
- using ladders
- climbing
- shaking
- high-powered rifles (licensed operators only)
- elevated platforms
- extraction of the seed from the collected material
- handling of the seed crop after picking
- storage of seed, such as:
 - bags or envelopes
 - appropriate containers
 - cool, dry location
 - dehumidifying agents (silica gel, wood ash)
 - oxygen exclusion techniques
 - freezer or refrigerator
 - pest deterrent mechanisms
 - light exclusion mechanisms
- documentation of the extracted seed, such as:
 - information on provenance
 - botanical name: family, genus, species, variety and/or cultivar
 - common names
 - brief plant description
 - identity of collector
 - date collected or use by date
 - quantity (by weight or number of seeds)
 - viability test results
 - organic certification of grower
 - growing instructions such as recommended season and spacing
- provenances of seed, such as:
 - location and growing conditions of parent plant
 - sub-catchment identification of seed from endemic native plant populations
 - species and/or varieties adapted to local conditions
- collecting ethics, protocols and legislative parameters, such as:
 - limits on quantity allowed for collection
 - limits on time period for collection
 - particular use or destination for seed
 - indigenous plant regulatory conditions

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER410 Recommend approaches for sustainable community and bioregional development

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recommend approaches for sustainable community and bioregional development. It requires the ability to identify the potential for sustainable community and bioregional development, develop processes to consult and to communicate with stakeholders.

For indigenous contexts, the delivery and assessment against this competency standard must comply with community protocols and guidelines and be supported by elders and custodians of country.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify potential for sustainable community and bioregional development	1.1 Broadly scope opportunities and constraints for sustainable community and bioregional development 1.2 Identify potential involvement of individual and group stakeholders 1.3 Source information on the community and bioregion
2. Develop processes to consult stakeholders	2.1 Identify cultural protocols to ensure contacts with individuals and communities are successful 2.2 Identify key people who may influence relationships 2.3 Formulate steps to develop and maintain contacts with community groups 2.4 Develop processes that are inclusive of an equitable involvement of various sections of the community and their perspectives 2.5 Adjust processes and communication modes for culturally diverse groups
3. Communicate potential and support for sustainable community and bioregional development	3.1 Consult with community groups and individuals in development of options 3.2 Discuss and evaluate options in consultation with community using agreed parameters 3.3 Develop preferred option and communicate its implications to community stakeholders 3.4 Facilitate links between individuals and community groups to ensure good community relationships and development of the program

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124COM10B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER410 Recommend approaches for sustainable community and bioregional development

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and modify procedures and processes
- write materials appropriate to audience
- identify cultural protocols
- consult with community groups

Knowledge Evidence

The candidate must demonstrate knowledge of:

- sustainable community and bioregional development, such as:
 - local food security initiatives
 - community gardens and city farms
 - climate action and energy descent initiatives
 - transition towns programs
 - community education and outreach
 - local economy and trade including complementary currencies
 - sustainable enterprise and business development
 - social wellbeing and welfare services
 - renewable energy production
 - landcare and environment programs
 - sustainable agriculture and land use
 - sustainable forestry and reforestation

- catchment and water resources management
- sustainable development and housing
- waste reduction and recycling
- principles governing sustainable community and bioregional development
- sources of relevant materials and verbal information
- cultural protocols and perspectives, such as:
 - beliefs, religion & taboos
 - world views (mythological, political, social, biological)
 - acceptable modes of communication/language
 - body language
 - concepts of family and community
 - community leadership
 - relationships between community members, ages and sexes
 - acceptable modes of dress
- relevant legislation and guidelines
- principles of equal opportunity and affirmative action
- community governance, financial systems, legal and health systems
- current relationships between culturally diverse groups in the area
- understanding of the role of various sections of the community in historical and relationship terms

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER411 Operate within a sustainable community and bioregional development program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate within a sustainable community and bioregional development program. It requires knowledge of community energy descent planning, group dynamics, community and bioregional issues. It requires the ability to communicate with a diverse group of people and to think sympathetically and laterally to support change in the community.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research the community and the bioregion	1.1 Obtain information about the community by reading and discussion 1.2 Obtain information about the bioregion and make connections between this and the community 1.3 Listen sympathetically and think laterally to understand the issues that could affect the program
2. Work within the community or bioregional development program	2.1 Become familiar with issues being tackled by the program 2.2 Become familiar with policies, procedures and strategies already adopted by the program 2.3 Work collaboratively within the program guidelines to support or effect change as needed 2.4 Communicate with all members of the community
3. Participate in the growth of the community or bioregional development program	3.1 Use permaculture design skills and lateral thinking processes to support ongoing development of the program 3.2 Forge links with like-minded organisations and groups within the bioregion according to the energy descent action plan, or the policies of the program 3.3 Maintain contacts and communications and solve conflicts in a spirit of cooperation and not competition 3.4 Maintain records according to program guidelines

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER411 Operate within a sustainable community and bioregional development program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research a community and a bioregion
- work within an existing sustainable community or bioregional development program
- participate in ongoing development of the sustainable community or bioregional development program

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to sustainable community and bioregional development
- Sustainable community and bioregional development programs, such as:
 - Transition Towns group activities or programs
 - climate change programs
 - peak oil or peak resource programs
 - alternative economic systems such as local exchange trading systems (LETS)
 - environmental, water catchment and natural resource conservation projects
 - social and cultural programs
 - housing and community development programs
 - community supported agriculture, organic and sustainable primary production and consumer networks and programs
 - energy descent action planning
 - local food and water security projects
 - renewable energy and appropriate technology projects

- greenhouse emission reduction and sequestration projects
- community profile development
- community consultation and facilitation methodologies, such as:
 - team and community building activities
 - community forums and discussion
 - open space events
 - cultural mapping processes
 - creative problem solving processes
 - visualisation and experiential processes
 - information gathering processes
- group dynamics and conflict resolution strategies

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER412 Operate within a permaculture aid and development program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate within a permaculture aid and development program. It requires knowledge of aid organisations and issues, working with other cultures and communities, group dynamics and communications.

For indigenous contexts, the delivery and assessment against this competency standard must comply with community protocols and guidelines and be supported by elders and custodians of country.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research the permaculture aid and development program	1.1 Obtain information about the program 1.2 Research the program, its community and bioregion 1.3 Research the living conditions, expectations and issues before becoming involved
2. Work within the permaculture aid and development program	2.1 Become familiar with the permaculture aid and development program 2.2 Ask questions and accept feedback from those already involved in the program 2.3 Contribute in a positive way and within the guidelines of the project 2.4 Ensure your own safety and the safety of others and do not take undue risks
3. Support the ongoing work of the permaculture aid and development program	3.1 Communicate effectively with others involved in the program 3.2 Support the aims and objectives of the program and help communicate these to others 3.3 Work to undo misunderstandings about communities requiring aid and the project work involved 3.4 When leaving the program ensure that own involvement has been constructive

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER412 Operate within a permaculture aid and development program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research the permaculture aid and development program
- work within a permaculture aid and development program
- support ongoing development of the permaculture aid and development program

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to permaculture aid and development
- permaculture aid and development programs, such as:
 - within other NGOs and government projects or organisations
 - overseas aid for disaster relief and recovery
 - Aboriginal and Torres Strait Islander programs
 - migrant and refugee programs
 - food and resource security programs
 - health and wellness programs
 - educational programs
- organisational policies and procedures
- personal health and safety risk assessment procedures
- community consultation and facilitation methodologies
- group dynamics and conflict resolution strategies

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER413 Evaluate suitability of species as solutions for permaculture applications

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to evaluate suitability of species as solutions for permaculture applications.

It requires knowledge of botany, zoology, ecology and climate science and the ability to research species in detail and make recommendations for a particular scenario. All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to

Element	Performance criteria
essential outcomes.	demonstrate achievement of the element.
1. Research species in detail and assess for usefulness	1.1 Carry out research into species for use in the permaculture project 1.2 Assess the usefulness of species for the roles or functions required in the system 1.3 Document research and include photographs or illustrations for correct identification
2. Assess the needs of the permaculture system	2.1 Undertake a complex needs analysis of the permaculture system 2.2 Confirm that the species selected will provide the solutions needed 2.3 Undertake further research if needed
3. Recommend species as solutions for permaculture applications	3.1 Prepare a report recommending species as solutions to permaculture applications 3.2 Support the recommendations with evidence from the research 3.3 Explain species interactions and inter-relationships
4. Evaluate suitability of species in a permaculture design	4.1 Review the permaculture design once species are in place 4.2 Evaluate suitability of the species in the design 4.3 Re-assess any species that are not performing the function as expected 4.4 Research alternatives or additional species to support the function

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER413 Evaluate suitability of species as solutions for permaculture applications

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research species for use in a permaculture project
- assess the usefulness of species in a permaculture project
- assess the needs of a permaculture system
- recommend species as solutions for permaculture applications
- evaluate the suitability of species in a permaculture design

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of permaculture related to needs of species and systems
- botany and zoology fundamentals
- research methodology
- complex needs analysis
- permaculture design strategies for species selection and inter-relationships
- Comparative analysis techniques
- Critical evaluation techniques for both written and graphic representations of permaculture design

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER501 Carry out permaculture field research

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake field research relevant to permaculture systems and projects. It requires the ability to design technical and social field research, prepare for field research, conduct field research, assess research outcomes and report on research relevant to permaculture systems and projects.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Scope permaculture field research	1.1 Identify challenges and opportunities in permaculture projects or systems that elicit research questions 1.2 Identify and justify the purpose of field research 1.3 Define and justify field research topic, question or hypothesis 1.4 Assess suitability of field research subject in relation to permaculture principles, practices and ethics
2. Design permaculture field research	2.1 Design field research plan 2.2 Identify relevant information sources and review relevant and credible literature related to the research topic 2.3 Determine appropriate research methods for data collection 2.4 Identify reference groups for field research, if applicable 2.5 Locate field research sites according to design requirements 2.6 Identify site factors where appropriate and incorporate into research 2.7 Create a budget for field research plan 2.8 Identify and obtain approvals and permits required
3. Prepare to conduct field research	3.1 Identify work health and safety hazards associated with the implementation of field research 3.2 Identify and document social and environmental implications associated with field research 3.3 Identify materials, tools, equipment and machinery required for field research, confirm cost and availability with suppliers, contractors and appropriate personnel 3.4 Establish and prepare field work sites for implementation of field research using the specifications of the field work design 3.5 Organise access to field research subjects at times and places suitable for data collection
4. Conduct field research	4.1 Undertake data collection throughout the course of field research according to the specifications of research design plan and chosen methodologies 4.2 Monitor field research for accuracy and compliance to research design 4.3 Record all research data accurately using the specifications of the research design
5. Assess practical application of research outcomes	5.1 Analyse research data for categories, themes, trends, patterns and significant information 5.2 Create quantitative and qualitative records of research data analysis 5.3 Synthesise research findings and draw conclusions based on evidence and reasoned arguments

Element	Performance criteria
	5.4 Assess the meaning of research outcomes for practical application, based on conclusions drawn from the field research
6. Report field research findings	6.1 Determine desired actions from field research 6.2 Determine target audience for field research reporting 6.3 Draft research report and obtain feedback 6.4 Publish and circulate field research report

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD125RCH01B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER501 Carry out permaculture field research

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- formulate and justify research questions
- design a field research plan
- conduct research and evaluate information
- enter, analyse and organise data quantitatively and qualitatively in charts, tables and graphs
- produce written reports on research outcomes and provide conclusions based on appropriate evidence and reasoned arguments

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles, practices and ethics, such as:
 - topics for field research
 - people or groups of people participating in or related to permaculture projects
 - people or groups of people participating in or related to other topics which themselves relate to permaculture
 - systems and/or technical elements of permaculture systems
 - animals-related studies (including insects, reptiles, birds and fish)
 - plant-related studies
 - studies of integrated plant and animal systems
 - appropriate technologies or technological solutions
 - appropriate energy generation, storage and capture
 - water treatment, catchment and storage systems

- natural systems
- environmental issues
- product comparisons
- field research methods, such as:
 - group and individual interviews
 - dialogue and storytelling
 - use of communications technology
 - records and testimonials
 - electronic recordings
 - questionnaires
 - statistical sampling
 - observation
 - surveys
- research methodologies, such as:
 - action research
 - needs studies
 - case studies
 - statistical sampling
- field research plan design – a staged sequence of steps and accompanying methodologies for obtaining answers to research questions
- permaculture systems implementation and management techniques and practices
- growth habits, physiological properties and taxonomic specification of animals and plants involved in permaculture
- participants and stakeholders of permaculture systems and projects, such as:
 - those who will use the research to influence decision making and policy
 - those who will benefit from the research
 - the researchers
 - ethics committees
 - anyone who is researched
- scientific and mathematical research approaches, data collection, processing and analytical techniques and procedures
- auditing and reporting procedures
- research planning and budgeting

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER502 Design an integrated permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design integrated permaculture systems in a range of contexts including developing a design brief, undertaking a site analysis, developing conceptual designs and producing a final design. It includes knowledge of landscape, building and settlement design and working with specialists and professionals. It includes drawing plans and projections by hand as well as using computer aided drafting and design.

The preparation of an integrated permaculture system design requires detailed knowledge of permaculture design principles, the ability to transfer concepts to novel permaculture situations, strong evaluation and planning skills, landscape design skills and research capacities.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a design brief	1.1 Initiate contact with the client when appropriate 1.2 Establish purpose, needs and requirements of design by consulting with client 1.3 Evaluate integrated permaculture design context and consider impacts of design stages, elements, functions and relationships 1.4 Develop a design brief in consultation with the client 1.5 Negotiate cost structures and timelines with the client 1.6 Evaluate and document cost structures and plan for budgeting limits and possibilities
2. Undertake design analysis and base plan	2.1 Obtain existing maps, geospatial data and aerial photographs of site 2.2 Survey and obtain social research data relevant to integrated permaculture design 2.3 Undertake field research supporting integrated permaculture design contexts and specific fields of inquiry, where required 2.4 Include Zones 1, 2, 3, 4 and 5 in the survey area using survey tools and equipment 2.5 Prepare a base plan 2.6 Record site assessment factors on the base plan 2.7 Carry out analysis of the site and bioregional analysis of the local area
3. Interpret site in permaculture terms	3.1 Carry out research of potential permaculture design elements to assess their suitability for the site 3.2 Identify functional interconnections between elements to increase yield and minimise resource use 3.3 Choose permaculture design elements on the basis of research 3.4 Work with architects, builders and planners or other contractors who may be involved in the project 3.5 Revise brief with client in relation to research and analysis
4. Prepare design concepts	4.1 Determine appropriate concepts 4.2 Prepare concept design drawings to illustrate conceptual themes and patterns informing the location and layout of proposed design elements 4.3 Present chosen concepts in a consistent graphic style 4.4 Compile lists of materials and quantities 4.5 Prepare a list of plant and animal species and varieties suitable

Element	Performance criteria
	for chosen concepts 4.6 Prepare a preliminary budget for conceptual design
5. Review the design concepts	5.1 Review the concepts against permaculture principles and ethics 5.2 Prepare presentations of draft design concept options for the client 5.3 Undertake consultation with the client to agree on options and approaches for design development 5.4 Review and revise concepts, elements, budget and the design brief after taking feedback from the client
6. Produce final design and integrated permaculture report	6.1 Design integrated permaculture system appropriate to the design brief, available budget, research, analysis, chosen elements and concepts 6.2 Produce detailed permaculture design documents 6.3 Present design plans, drawings and permaculture design report documents to the client 6.4 Obtain feedback from the client and revise design as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD125DES02C.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER502 Design an integrated permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- demonstrate drafting and drawing techniques
- negotiate with clients
- undertake a site analysis and site survey
- provide urban and rural permaculture design solutions
- analyse zones and sectors of a site
- develop concepts
- develop planting schedules and bills of quantity
- develop a design budget
- develop final design drawings including elevations and projections
- design presentations

Knowledge Evidence

The candidate must demonstrate knowledge of:

- elements of integrated permaculture design
- principles of integrated permaculture design
- strategies for urban and rural permaculture design
- strategies for building design and working with builders and architects
- strategies for settlement design and working with planning authorities
- design brief elements
 - statement of scope of design
 - statement of client needs and requirements
 - food production

- system efficiency
- system production
- fibre, energy and building material production
- water harvesting
- waste treatment
- energy planning and design
- biodiversity habitat
- soil carbon building
- soil fertility
- establishment of financial budget
- establishment of time budget
- maintenance of financial budget
- maintenance of time budget
- design of establishment documents
- maintenance planning
- sustainable commercial enterprises
- social amenities
- cultural considerations
- list of project elements
- list of assessable tasks
- design analysis and research techniques
- plan interpretation and map reading
- site surveying methods and tools
 - onsite measurement of site boundaries
 - mapping of boundaries to scale to a plan drawing
 - onsite layout of 1m contour
 - mapping of contour lines to a scale plan drawing
 - measurement and location of existing infrastructure and natural features on site
 - mapping of existing infrastructure and natural features to a scale plan drawing
 - dumpy level or equivalent surveying instrument for taking vertical measurements on site
 - dumpy level or equivalent surveying instrument for measuring angles on site
 - GPS, satnav
 - measuring tapes for measuring distance on site.
- design concepts and detailed design drawings
 - property boundaries, scale and north point
 - authors of plans, contact details
 - address of site
 - date plan drawn
 - existing infrastructure and natural features

- drawing to scale
- relevant overlays and drawing numbers
- large format planning (at least A1 or A2)
- overlays such as fire, flora and fauna, soil and geology, local planning ordinances, buffer and riparian zones, use zones
- contour lines or other appropriate indication of slope direction and gradients
- drainage features
- Lot, DP, landowner address and contact details
- permaculture design methods
- conventional design symbols
- design drafting and drawing conventions
- computer-aided drafting and design
- plant and animal selection

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is NOT sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER503 Develop a strategic plan for a permaculture project or enterprise

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a strategic plan for a permaculture project or enterprise. It requires the ability to prepare a strategic plan brief, research and analyse planning information, develop strategic plan stages, document a strategic plan, and review a strategic plan against desired outcomes. Developing a strategic plan for a permaculture project requires knowledge of permaculture principles and practices, climate change and peak oil impacts, sustainable community development practices, research methods and strategic planning methodologies.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a strategic plan brief for a permaculture project or enterprise	1.1 Evaluate the current context of the permaculture project or enterprise 1.2 Determine core values of the project or enterprise 1.3 Define project vision statement, aims and objectives 1.4 Establish project or enterprise goals in consultation with stakeholders 1.5 Evaluate strategic plan values, goals and vision statement with respect to permaculture principles and ethics 1.6 Document strategic planning brief 1.7 Develop protocols on cultural respect and sensitivity 1.8 Review and revise strategic plan brief at appropriate project development intervals
2. Research and analyse strategic planning information	2.1 Determine information needed for strategic plan with reference to plan brief 2.2 Identify key elements and themes 2.3 Determine research subjects 2.4 Compose research plan and methodologies 2.5 Review local, state and national government legal and planning acts and codes relevant to project or enterprise 2.6 Review and revise strategic plan brief in relation to research findings
3. Identify strategic planning stages	3.1 Identify strategies required to achieve planning goals in consultation with relevant parties 3.2 Determine action plans required to execute strategies 3.3 Order strategies and action plans into a series of strategic planning stages 3.4 Determine planning benchmarks for future stage completion review 3.5 Review and revise plan brief with reference to strategic planning stages
4. Document and distribute strategic plan	4.1 Produce a clear, concise and consistently formatted written strategic planning document 4.2 Distribute strategic plan to all relevant parties to ensure effective communication of project or enterprise planning 4.3 Take feedback on plan documentation and review and revise documentation as required

Element	Performance criteria
5. Review strategic plan	5.1 Determine mechanism for evaluation of strategic plan 5.2 Determine timeframes for evaluation 5.3 Evaluate with reference to permaculture principles and practices 5.4 Evaluate feedback from all relevant parties on implementation issues and outcomes 5.5 Identify problems and revise as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD125PLA03C.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER503 Develop a strategic plan for a permaculture project or enterprise

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a strategic plan brief
- acquire project resources
- undertake stakeholder consultation
- document a strategic plan
- evaluate the vision statement
- interpret feedback on the strategic plan
- demonstrate group leadership

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles, ethics and practices
 - The two main summaries of permaculture principles are found in Bill Mollison and Reny Mia Slay *Introduction to Permaculture* (1991) and David Holmgren *Permaculture: Principles & Pathways Beyond Sustainability* (2002)
 - sustainable agriculture
 - garden agriculture
 - sustainable horticulture
 - sustainable aquaculture
 - soil restoration
 - bush regeneration
 - biodiversity regeneration
 - sustainable community development

- sustainable project and enterprise development
- bioregional development
- relocalisation
- sustainable design
- sustainability education
- earth care
- people care
- return of surpluses and setting limits to growth
- permaculture values
 - environmental restoration
 - sustainable food production
 - sustainability education
 - environmentally sustainable human habitation
 - sustainable community development
 - sustainable community transition
 - right livelihood
 - social justice
 - ecological economics
 - universal human rights
 - cultural recognition
- permaculture projects or enterprises
 - community gardens
 - permaculture workshops, training and education
 - sustainable agricultural systems
 - urban permaculture systems
 - community sustainable transition initiatives
 - climate change initiatives
 - conservation organisations
 - sustainability not-for-profits, NGOs, businesses, companies, trusts and incorporated community associations
 - permaculture design consultancies
 - permaculture system implementation services
 - alternative community finance and economic systems
 - permaculture information and communication services
- strategic planning
 - vision statement
 - statements of where project or enterprise would like to be in future
 - imagined futures
 - statements of possible futures for world outside of project
 - project or enterprise goals

- environmental targets
- community development targets
- food production
- design criteria
- happiness indicators
- sustainability indicators
- strategies
 - human resource management
 - financial planning
 - purchases and acquisitions
 - cost cutting
 - income generation
 - promotion and marketing
 - organisational restructuring
 - project or enterprise start up
 - mentoring and education
 - new project or enterprise initiatives
 - political lobbying
 - grant applications
 - community consultation
 - research and development
- action plans - sequences of smaller steps necessary to achieve strategies
- timelines
- benchmarks, such as
 - verifiable stage completion criteria
 - numerical indicators
 - qualitative indicators
 - observable outcomes
- community development
- project management
- feasibility study methodology
- contract law
- budgetary frameworks

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER504 Manage a permaculture project or enterprise

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage a permaculture project or enterprise. It requires the ability to initiate, plan, manage, monitor and complete a permaculture project or enterprise. Managing a permaculture project or enterprise requires knowledge of permaculture principles and practices, permaculture design, bioregional and community development, community sustainable transition strategies, ecological agriculture, costing and pricing, and project management.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Initiate permaculture project or enterprise	1.1 Undertake strategic planning assessment of permaculture project or permaculture enterprise 1.2 Initiate community and bioregional assessment of project or enterprise 1.3 Determine the scope of the project or enterprise 1.4 Determine feasibility of project or enterprise 1.5 Determine stakeholders in project or enterprise
2. Cost and quote for permaculture project or enterprise start up	2.1 Prepare costings and quotations using realistic price structure 2.2 Include a contingency amount in case of need 2.3 Include allowances for work in kind and volunteers, ensuring that the right livelihood of all is considered 2.4 Prepare a detailed budget with stages of implementation 2.5 Submit quotation and cost outline to client and be prepared to justify costs
3. Manage permaculture project or enterprise	3.1 Secure human and material resources required to achieve strategies 3.2 Execute action plans to achieve strategic ends 3.3 Follow budget and project stages 3.4 Direct process outlined in action plans and timelines 3.5 Integrate project human and material resources to achieve planned project outcomes 3.6 Establish communication process including responsibilities for conflict resolution 3.7 Take feedback on management practices and processes
4. Monitor permaculture project or enterprise	4.1 Observe execution of project or enterprise action plan processes 4.2 Review and correct problematic planning processes 4.3 Measure project or enterprise activities 4.4 Measure costs against budget and communicate with client regarding any over-runs 4.5 Monitor project or enterprise variables
5. Undertake permaculture project or enterprise	5.1 Confirm completion of action plan processes 5.2 Determine success of project or enterprise strategies in relation to stage benchmarks, budget and timelines 5.3 Document permaculture project or enterprise management initiation, planning, execution, monitoring and completion or

Element	Performance criteria
	ongoing progress 5.4 Conclude permaculture project or continue to manage and monitor permaculture enterprise

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD125MAN04B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER504 Manage a permaculture project or enterprise

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out strategic planning assessment of a permaculture project or enterprise
- acquire project resources
- develop project pricing and costing
- consult with stakeholders
- manage project activities
- evaluate and report on project
- manage human resources
- demonstrate group leadership

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles, ethics and practices
- permaculture projects
 - initiatives with a defined sustainability purpose and time horizon
 - sustainable community development projects
 - bioregional initiatives
 - not-for-profit projects
 - projects on public land
 - community gardens
 - community supported agriculture systems
 - land restoration and conservation works
 - alternative technology programs

- sustainability education
- social and economic development activities
- community carbon reduction and sequestration strategies
- energy descent or transition projects
- disaster preparedness, response and recovery
- permaculture enterprises
 - ethical for-profit businesses where surpluses are returned to earth care and people care
 - initiatives with a focus on right livelihood with plans for ongoing operation and/or growth
 - sustainable farming
 - community food distribution businesses
 - permaculture design and consultancies
 - energy descent planning services
 - climate change planning services
 - permaculture works implementation businesses
 - community and bioregional sustainability planning services
 - community economic and enterprise systems
 - integrated social, housing and community development programs
 - community supported agriculture
 - organic and sustainable primary production
 - local food and water security enterprises
 - greenhouse emission reduction and sequestration enterprises
 - sustainable regional transport networks and systems
- strategic planning
- project management
 - human resource management
 - financial planning
 - purchases and acquisitions
 - costing and pricing
 - income generation including issues of right livelihood
 - promotion and marketing
 - organisational restructuring
 - project or enterprise start up
 - mentoring and education
 - new project or enterprise initiatives
 - political lobbying
 - grant applications
 - community consultation
- research and development
- community development

- feasibility study methods
 - economic and financial assessment
 - legal and planning issues
 - market opportunities and challenges
 - community and cultural acceptance
 - bioregional suitability
 - operational considerations
 - resource availability
 - sustainability criteria
 - energy descent/transition strategies
 - climate change strategies
 - environmental, water catchment and natural resource conservation issues
- contract law
- budgetary frameworks
- benchmarking

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER505 Plan and supervise the implementation of permaculture project works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and supervise the implementation of permaculture project works through preliminary planning, scope of works, work health and safety procedures, equipment and materials, works schedules, specifications and environmental impacts, organising and supervising project works implementation.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They take accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Carry out preliminary activities for permaculture project works	1.1 Confirm and verify client preferences and contract requirements for permaculture project 1.2 Determine scope of works 1.3 Identify specific statutory obligations 1.4 Conduct initial site visit to verify the biophysical and other factors of the project area, including environmental considerations and historical modifications 1.5 Analyse technical challenges and forecast required research and planning 1.6 Review scope of works and contract requirements with respect to permaculture principles and ethics 1.7 Identify work health and safety hazards and obligations
2. Investigate resource issues associated with the works	2.1 Verify the availability, quantity and costs of plants and other materials listed in the project schedules 2.2 Identify and cost material resources and tools and equipment required for permaculture works 2.3 Confirm availability with suppliers, contractors and appropriate personnel 2.4 Investigate site access and establishment issues and plan for environmental impacts
3. Prepare a permaculture project works plan	3.1 Document a statement of scope of works 3.2 Prepare a safety plan for permaculture project works 3.3 List tools and materials required for permaculture project works their amounts and their sources 3.4 Prepare a staged program of works to provide a sequential allocation of material resources and works tasks with specifications to meet determined project timelines 3.5 Evaluate program of works with respect to accepted permaculture practices 3.6 Determine the establishment period and maintenance period of works 3.7 Incorporate seasonal factors and impacts in the staging strategy 3.8 Include, where required, special project works related to habitat resource development and enhancement in the staged implementation plan 3.9 Develop and prepare a consistently formatted permaculture works plan document
4. Implement permaculture project	4.1 Supervise permaculture project works 4.2 Take delivery of materials and equipment

Element	Performance criteria
works plan	4.3 Assemble human resources on site 4.4 Undertake works briefing and safety briefing 4.5 Undertake and manage permaculture project works 4.6 Inspect works tasks for adherence to specifications, correcting and modifying as necessary 4.7 Monitor environmental impacts of project works and modify where required 4.8 Complete permaculture project works and confirm satisfactory outcome with client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD125PLA05B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER505 Plan and supervise the implementation of permaculture project works

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine and review project scope of work
- assess a site for opportunities and constraints associated with implementation of permaculture works
- prepare schedules for implementation of permaculture works
- prepare a staged permaculture works plan
- complete a work health and safety briefing
- prepare a Statement of Environmental Effects
- supervise permaculture project works

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices
- Permaculture project works, such as:
 - food gardens
 - community gardens
 - urban permaculture systems
 - rural permaculture systems
 - aquaculture systems
 - horticultural systems
 - forest systems
 - grazing and pasture systems
 - animal systems and tractors

- integrated food, fibre and energy systems
- permaculture structures
- soil treatments
- preparation of soil surfaces
- installation of irrigation and/or drainage systems including earthworks
- planting methods such as hand sowing, direct seeding, tube planting, hand or machine assisted planting of seedlings, planting of divisions and transplanting
- natural area regeneration
- fencing of stock and pest animals
- the cultural or biological control of weeds and feral animals
- protection of plants by staking, tying and guarding
- permaculture design techniques including zone and sector planning
- biophysical factors of a site, such as:
 - location of the site
 - site boundaries
 - environmental considerations
 - access issues
 - potential hazards
 - utility service
 - availability and locations
 - adjacent landholder considerations
 - security issues
 - aspect of the site
 - rainfall
 - humidity
 - wind and sunlight intensity
 - soil types
 - nutrients and deficiencies
 - slope
 - natural and artificial watercourses
 - outcrops of rock
 - presence of indigenous or other significant vegetation, indigenous or otherwise
 - plants that may become a weed problem
 - animals that may become a management issue, feral species or otherwise
- practical understanding of the environmental issues associated with undertaking permaculture works, such as:
 - use of materials that come from sustainable sources
 - duty of care in conserving sites natural values
 - work practices

- the use and movement of machinery, storage of materials, removal of weeds and movement of soil and other materials into, across and beyond the site
- principles of ecology including specific plant and animal relationships and habitat requirements
- statutory compliance and obligations, such as
 - compliance with legislation, ordinances, regulations or by laws relating to the works or the work site
 - site responsibilities, including OHS, industrial relations and equal opportunity and employment
- site evaluation techniques including methods of analysing soils, waterways and their condition
- control techniques against unwanted plant and animal species
- soil conservation, erosion control and enhancement techniques and their advantages and disadvantages in reference to specific sites and habitats
- selection and use of appropriate combinations of machinery and tools
- work health and safety hazards and the controls necessary to remove or minimise risks associated with them
- contract documentation including specifications, plans of permaculture works, services, supplies and surveyors documents
- scope of works determination
- works breakdown into tasks
- scheduling and time line generation
- task specifications and evaluation

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER506 Develop a relocalisation or transition project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a relocalisation or transition project. It includes knowledge of community planning issues, resource depletion issues, climate change issues and Energy Descent Action Planning.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify key issues in	1.1 Research the community and the bioregion to identify most

Element	Performance criteria
the transition community	pressing transition issues 1.2 Research history of dealing with these issues 1.3 Research ways in which other communities or bioregions have dealt with these issues 1.4 Research existing solutions to the problems identified
2. Work with transition community to devise an energy descent action plan	2.1 Involve local community in the issues identified through community consultation 2.2 Reach out to as many people as possible in the community to ensure all views are canvassed 2.3 Support the development of a core group to distil the community work 2.4 Support development of new groups to explore preferences at the individual and family level 2.5 Coordinate the participation of diverse interest groups and individuals in the ongoing development of the project 2.6 Maintain communications and resolve conflicts as required
3. Develop a strategy or an Energy Descent Action Plan	3.1 Collate feedback from groups and organisations 3.2 Prepare a strategic plan to address the issues identified 3.3 Prepare an Energy Descent Action Plan (EDAP), if required, containing all the issues, strategies and actions to be undertaken 3.4 Include a timeline and benchmarks for energy descent action so that the community can follow progress
4. Circulate the strategy or EDAP for comment	4.1 Carry out a process of community consultation and feedback on the EDAP 4.2 Take comments and evaluate responses 4.3 Update and re-circulate the EDAP as required
5. Publish the strategy or EDAP	5.1 Launch the strategy or EDAP in a culturally appropriate manner that involves as many members of the community as possible 5.2 Make the strategy or EDAP available in different forms for different audiences including summaries and graphic representations 5.3 Support the role out of the action strategies and continue to encourage participation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER506 Develop a relocalisation or transition project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify key issues in the transition community
- work with community to develop energy descent action strategies
- develop an energy descent action strategy or an Energy Descent Action Plan (EDAP)
- consult with the community on the strategy or EDAP
- support actions from the strategy or plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles, ethics and practices
- relocalisation of essential services and community functions
- Climate Change strategies
- transition Towns
- Energy Descent Action Planning
- positive action strategies for:
 - food production and supply
 - infrastructure – urban and rural
 - water and waste water
 - energy production and supply
 - housing and settlement design
 - communications
 - education and upskilling
 - employment

- economics and alternative economics
- health and wellbeing
- community governance and decision making systems
- land ownership and stewardship
- emergency preparedness and critical supply strategies
- strategic planning
- community development
- feasibility study methods

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER507 Research and interpret requirements for a permaculture project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to gather and validate information in order to advise on planned permaculture projects. Researching and interpreting requirements for a permaculture project requires knowledge of permaculture principles and practices, research methodologies, consultation models, feasibility studies, information systems, report presentation, cultural analysis of information, cultural implications of research methods and legislative requirements.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate broad knowledge in an area of work with depth in areas of specialisation. They undertake functions with initiative and judgement and take personal responsibility and exercise autonomy in undertaking complex work. They have accountability for the work of others (teams) within broad parameters, analyse and synthesise information as well as analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select appropriate research strategies	1.1 Select and justify appropriate research methods for the requirements of the permaculture project and the available resources 1.2 Develop and justify a research question or hypothesis 1.3 Select a combination of research methods to promote the validity of the outcomes 1.4 Negotiate the selection of research strategies with key people
2. Gather information	2.1 Identify relevant information sources and review relevant and credible literature related to the research topic 2.2 Assess and analyse legislative requirements impacting on the project 2.3 Identify government departments and agencies with a potential interest in the permaculture project 2.4 Collect and catalogue information from a wide range of sources
3. Consult with key people	3.1 Identify and consult a representative range of people and groups with an interest in the issues relating to the permaculture project 3.2 Review information, check for accuracy and identify the need for further information and follow-up 3.3 Liaise with key people, where required 3.4 Undertake community consultations following agreed practices and protocols
4. Organise and analyse information	4.1 Organise data generated by the research 4.2 Check the results against other available research 4.3 Look for patterns, observations and explanations and interpret them against the context 4.4 Clearly explain the concepts being analysed to key people and continue with community consultations
5. Report the findings of the research	5.1 Report complete and accurate details of the research methodology, information and analysis 5.2 Provide opportunities for the validation of the research findings using a range of different processes 5.3 Report the research findings in an accessible and useable style and format 5.4 Make the research available to all key people and those who have an interest in the project

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD125RCH07B.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER507 Research and interpret requirements for a permaculture project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select and justify appropriate research strategies
- gather information
- assess practical from impractical solutions
- consult with key people with an interest in the issues relating to the permaculture project
- organise and analyse information
- report the findings of the research

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices and their role in sustainable development and design
- climate change science and mitigation strategies
- research methods, such as:
 - group and individual interviews
 - dialogue and storytelling
 - libraries – digital and conventional
 - electronic recordings
 - questionnaires
 - statistical sampling
 - observation
 - surveys
- research methodologies, such as:

- action research
- needs studies
- literature searches and correct referencing
- case studies
- consultation models
- feasibility study methodologies
- information systems (conventional and electronic)
- report presentation
- cultural analysis of information
- cultural implications of research methods

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER508 Manage a permaculture aid and development project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage a permaculture aid and development project in a remote community. It requires good management, communication and financial management skills. It requires knowledge of the aid and development industry, organisational structures, government and non-government functions, legal issues covering charities and working with vulnerable communities, disaster planning, relief and response issues.

For indigenous contexts, the delivery and assessment against this competency standard must comply with community protocols and guidelines and be supported by elders and custodians of country.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Obtain information on the aid project	1.1 Contact the peak aid organisation or government department to obtain information about aid projects 1.2 Research similar projects and their outcomes 1.3 Research the remote community or location to start fully informed about cultural protocols and issues
2. Develop a plan for the project in consultation with others	2.1 Ascertain the nature of the project, the issues and the key personnel at the remote location 2.2 Work with other organisations involved in the aid project and clarify chain of command 2.3 Establish clear communication channels as early as possible 2.4 Confirm budget allocations and allowances attached to the project 2.5 Document the permaculture aid and development project as a strategic plan 2.6 Distribute the strategic plan as required
3. Obtain resources and confirm logistics for transportation to remote location	3.1 Negotiate material resources, equipment and other needs with the remote community 3.2 Communicate in a culturally sensitive manner at all times and maintain correct communication sequence 3.3 Arrange transportation to remote location with full documentation, procedures and cultural protocols in place 3.4 Monitor transportation phase closely
4. Organise human resources and confirm transit and living arrangements, food and supplies for staff	4.1 Interview and engage personnel 4.2 Confirm living arrangements with contact at remote community 4.3 Confirm food and supply lines for personnel separately from aid arrangements 4.4 Document and communicate these arrangements 4.5 Brief personnel on arrangements and project ahead of departure
5. Document the emergency plan	5.1 Write up the emergency plan with the aims and objectives of the project 5.2 List strategies for achieving the aims 5.3 Allocate personnel and resources to the strategic actions 5.4 Include benchmarks and timeline for operations 5.5 Include processes, procedures and communication lines for

Element	Performance criteria
	adoption by personnel on the ground
6. Manage the permaculture aid and development project	6.1 Maintain regular communication with the team on the ground 6.2 Troubleshoot any issues that arise 6.3 Document the roll out of the plan and address any gaps or misunderstandings immediately 6.4 Reduce paperwork and stress for operatives on the ground by simplifying reporting procedures and actioning requests quickly 6.5 De-brief personnel on return, and maintain detailed records of the project

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER508 Manage a permaculture aid and development project

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- obtain information about the permaculture aid and development project
- develop a plan for project consultation
- obtain resources for the permaculture project
- obtain human resources for the permaculture project
- document the emergency plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles, ethics and practices related to aid and development in remote communities and overseas
- permaculture aid and development projects, such as:
 - disaster response and recovery
 - disaster planning
 - community projects in remote communities
 - social and economic development projects
 - educational projects in remote communities
 - health and wellbeing projects in remote communities
 - resource management project for remote communities
 - sustainable farming projects
 - regional autonomy projects
- strategic planning
- project management, such as:

- human resource management
- financial planning
- purchases and acquisitions
- organisational structure
- mentoring
- training
- new project or enterprise initiatives
- grant applications
- community consultation
- research and development
- community development
- cultural protocols and taboos
- religious practices and sensitivities
- engineering issues associated with remote area power supply, water supply, sewerage and waste treatment, erosion and sediment control, structural support and emergency housing
- feasibility study methods, such as:
 - economic and financial assessment
 - legal and planning issues
 - market opportunities and challenges
 - community and cultural acceptance
 - bioregional suitability
 - operational considerations
 - resource availability
 - sustainability criteria
 - energy descent/transition strategies
 - climate change strategies
 - environmental, water catchment and natural resource conservation issues
- contract law
- budgetary frameworks
- benchmarking

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER509 Design permaculture structures and features

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design permaculture structures and features. It requires the ability to develop a design brief, undertake a site analysis, develop a concept design, produce a final plan and prepare bill of quantities and estimates. Designing permaculture structures and features requires knowledge of permaculture design process, construction and engineering principles, drafting techniques, cost estimating, and calculations of materials, labour, machinery and equipment.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate broad knowledge in an area of work with depth in areas of specialisation. They undertake functions with initiative and judgement and take personal responsibility and exercise autonomy in undertaking complex work. They have accountability for the work of others (teams) within broad parameters, analyse and synthesise information as well as analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a design brief	1.1 Consult client to establish the purpose and requirements of design 1.2 Develop design brief in agreement with the client 1.3 Negotiate cost structures and timelines with the client 1.4 Clarify and negotiate use of consultants and sub-contractors with client
2. Undertake a site analysis	2.1 Inspect site where the permaculture structure or feature is to be located 2.2 Record the physical elements and features of the site 2.3 Analyse and record assessment of soil, topography, aspect, existing vegetation and climatic factors 2.4 Assess and record other relevant information 2.5 Assess legal requirements and constraints on development
3. Develop a concept design	3.1 Prepare concept plan to illustrate location and layout of proposed structure or feature according to the design brief 3.2 Undertake consultation with the client to establish agreement on options and approaches for development 3.3 Present the concept plan in a consistent graphic style
4. Produce a final plan	4.1 Produce a detailed final plan according to the design brief 4.2 Prepare design to scale 4.3 Provide information on the plan that is relevant and precise and clearly communicates development works to be undertaken 4.4 Include notes and specifications on the plan to assist in plan interpretation 4.5 Apply appropriate construction and engineering principles to permaculture plan
5. Prepare documentation	5.1 Prepare bill of quantities listing scope and extent of works 5.2 Prepare cost estimate for the client covering items in bill of quantities, labour and machinery and equipment costs

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD125DES09B

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER509 Design permaculture structures and features

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a design brief
- undertake a site analysis
- develop a concept design
- produce a final plan
- prepare a bill of quantities and estimates

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture design process including:
 - site survey
 - needs analysis
 - bioregional analysis
 - zone and sector analysis
- construction and engineering principles
- drafting techniques
- cost estimating
- environmental, resource and energy implications of building materials, such as:
 - thermal mass
 - insulation
 - embodied energy
 - embedded energy

- cradle to grave planning
- passive heating and cooling systems
- the following alternative and natural building materials and techniques: earth, straw bale, pole construction and passive solar principles

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER510 Prepare a sustainable community and bioregional development strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare a sustainable community and bioregional development strategy, including the ability to prepare a brief, analyse available information, consult with individuals, groups and the community, identify required strategies, design organisational structures, and document a community and bioregional development strategy.

It requires knowledge of permaculture and community development principles and practices, transition town processes, community profiles, structure, processes and characteristics of community organisations, funding sources and their policies and strategies for encouraging community input and participation, relevant local, state and federal strategies and legislation and specific knowledge of particular groups or issues.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate broad knowledge in an area of work with depth in areas of specialisation. They undertake functions with initiative and judgement and take personal responsibility and exercise autonomy in undertaking complex work. They have accountability for the work of others (teams) within broad parameters, analyse and synthesise information as well as analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare a brief	1.1 Define aims and objectives of the sustainable community and bioregional development strategy in the brief and the strategic plan 1.2 Define core values, principles and guidelines in the brief and the strategic plan 1.3 Develop protocols for the design, implementation and ongoing management in consultation with stakeholders
2. Analyse available information	2.1 Collate information on the community and bioregion 2.2 Identify key elements and themes 2.3 Map interconnections and relationships between key elements and themes 2.4 Determine legal and planning instruments and guidelines relating to the community and bioregion 2.5 Identify key people, specialist advisers and consultants to assist in the development of the strategy
3. Consult with individuals, groups and the community	3.1 Respond to individual concerns in a manner which engages support and cooperation 3.2 Identify opportunities and approaches to ensure community access and involvement in consultation and participatory processes 3.3 Identify and develop processes for feedback and ongoing community or group involvement in the planning process and action outcomes 3.4 Provide guidance to the group and respond with appropriate options and solutions to address their concerns and issues 3.5 Select and apply appropriate community consultation methods and document results
4. Identify required strategies	4.1 Develop steps required to implement strategies that are logical and capable of implementation 4.2 Clearly formulate strategies and make available to relevant parties for comment, where appropriate 4.3 Develop strategies in consultation with all relevant parties 4.4 Recognise and document opportunities and constraints to

Element	Performance criteria
	implementation 4.5 Document approaches and methods and any adjustments for future reference
5. Design organisational structures	5.1 Provide assistance to groups in designing appropriate mechanisms and actions to address the range of issues 5.2 Contribute to the development of policies and processes to facilitate resolution of group concerns in the public arena 5.3 Employ effective interpersonal skills to motivate the group to work cooperatively 5.4 Develop operational arrangements to facilitate group processes 5.5 Assist the group to identify additional assistance and resources as required 5.6 Contribute to organisational or management strategies for coordination of multiple activities and initiatives
6. Document community and bioregional development strategy	6.1 Support proposed strategies for sustainable community and bioregional development and transition with available evidence 6.2 Confirm that sound operational plans can be implemented based on the proposed strategies 6.3 Develop documentation 6.4 Distribute the strategy plan to all relevant parties and ensure effective communication of information

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD125COM10B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER510 Prepare a sustainable community and bioregional development strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare a brief
- analyse available information
- consult with individuals, groups and the community
- identify required strategies
- design organisational structures
- document a community and bioregional development strategy

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to bioregional development
- bioregional analysis and development
- climate change, Peak Oil and resource depletion responses
 - Transition Towns
 - community or bioregional development strategies, such as:
 - Transition Towns group activities or programs
 - ways of reducing the ecological ‘footprint’ of individuals, organisations or the community at large
 - ways of influencing government policy
 - ways of influencing business practices
 - support for ideas and solutions which enable transition to a low-carbon/low-energy future
 - environmental, water catchment and natural resource conservation projects

- community economics and enterprise
- social and cultural programs
- housing and community development programs
- strategic planning frameworks
- community supported agriculture, organic and sustainable primary production and consumer networks and programs
- energy descent plans
- local food and water security
- renewable energy and appropriate technologies
- greenhouse emission reduction and sequestration
- disaster preparedness, response and recovery
- strategic planning framework including:
 - core values
 - vision
 - goals
 - strategies
 - action plans
 - benchmarks
 - timelines
- community profile development
- community consultation and facilitation methodologies, such as:
 - team and community building activities
 - community forums and discussion
 - open space events
 - cultural mapping processes
 - creative problem solving processes
 - visualisation and experiential processes
 - information gathering processes
- structure, processes and characteristics of community organisations, such as:
 - non-government organisations
 - government organisations
 - cooperatives
 - incorporated and non-incorporated groups
 - companies both limited and unlimited
 - public companies both listed and unlisted
 - trusts
- funding sources and their policies and strategies for encouraging community input and participation, such as grants, gifts and crowd-sourced funding
- relevant local, state and federal strategies and legislation
- specific knowledge of particular groups or issues

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER511 Facilitate participatory planning and learning activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to facilitate participatory planning and learning activities. It requires the ability to devise strategies for facilitating participatory planning and learning and to carry out, report on and review participatory planning and learning. Facilitating participatory planning and learning activities requires knowledge of permaculture principles and practices, a range of participatory planning and learning activities, codes of conduct and ethical behaviour and group presentation methodology.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate broad knowledge in an area of work with depth in areas of specialisation. They undertake functions with initiative and judgement and take personal responsibility and exercise autonomy in undertaking complex work. They have accountability for the work of others (teams) within broad parameters, analyse and synthesise information as well as analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Devise strategies for facilitation of participatory planning and learning	1.1 Identify and assess a range of participatory planning and learning facilitation strategies 1.2 Identify and profile client group 1.3 Clarify planning and learning objectives and outcomes 1.4 Assess resources required to conduct participatory planning and learning 1.5 Identify appropriate venue or learning environment for client group and activities 1.6 Select participatory planning and learning strategies which enable and encourage relevant groups or people to be involved 1.7 Prepare and circulate program and logistical details to interested parties 1.8 Review legislative and organisation requirements to ensure strategies meet all criteria
2. Carry out participatory planning and learning activities	2.1 Prepare learning activities information which is clear and appropriate to the needs of participants and other parties involved 2.2 Brief all participants and people involved in facilitating participatory planning and learning activities on the processes of delivery 2.3 Provide information to participants and other people involved at an appropriate time and place 2.4 Implement access and equity requirements in the participatory planning and learning activities 2.5 Carry out community participatory planning and learning activities to ensure compliance with designated timeframe 2.6 Carry out participatory planning and learning activities in a manner that ensures participation in decision-making, considers needs of participants and canvasses all points of view
3. Report on and review participatory planning and learning	3.1 Collect and collate feedback from participants to facilitate analysis 3.2 Incorporate appropriate suggestions for improvements to the activities into future participatory planning and learning activities plans 3.3 Provide summaries of responses and adopted amendments to interested parties 3.4 Direct other issues raised during participatory planning and

Element	Performance criteria
	learning to relevant people for response and follow up 3.5 Prepare an accurate report on participatory planning and learning activities 3.6 Review and evaluate the overall effectiveness of participatory planning and learning activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD125COM11B.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER511 Facilitate participatory planning and learning activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- devise strategies for facilitating participatory planning and learning
- facilitate group processes in an engaging and inclusive way
- conduct participatory planning and learning activities
- communicate with people of a wide diversity of ages and socio-economic or cultural groups
- review and report-on participatory planning and learning
- coordinate and brief team members
- problem-solve and build group dynamics

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices
- learning styles and methodologies, including accelerated and experiential learning
- strategies for facilitation of participatory planning and learning
- participatory planning and learning activities and processes, such as:
 - team building – ice breakers, trust games, creative and social activities, goal-setting, celebration and cultural activities
 - creative expression – wild design, mime, performing and visual arts, story telling
 - problem solving – brainstorming, mind mapping, random-input processes, PMI, SWOT, Six Thinking Hats, theming and chunking, affinity matrix, modelling
 - experiential – visualisation, affirmation, role play, cultural mapping, 6 senses, modelling, simulations, educational and experiential games

- information gathering – group and individual research and observation activities, sharing information, questioning, resource and skills mapping, surveys, field trips
- Negotiation – open forum, active listening, prioritisation, consensus building, win-win.
- *Dynamic Groups, Dynamic Learning*TM facilitation skills and methodology (Robin Clayfield)
- conflict resolution and strategies to deal with strong personalities
- codes of conduct and ethical behaviour
- group presentation methodology

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPER512 Plan community governance and decision-making processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan community governance and decision-making processes. It requires the ability to assess future needs and, for existing groups, current community governance and decision-making processes. It requires the ability to develop options for community governance and decision-making frameworks and processes and report on preferred options for implementation. Planning community governance and decision-making processes requires knowledge of strategic planning, legal frameworks, advanced negotiation techniques, organisational change and development, group and individual goal setting techniques, risk management processes and techniques, action planning methods and information technology.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate broad knowledge in an area of work with depth in areas of specialisation. They undertake functions with initiative and judgement and take personal responsibility and exercise autonomy in undertaking complex work. They have accountability for the work of others (teams) within broad parameters, analyse and synthesise information as well as analyse, design and communicate solutions to a range of complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess current community governance and decision-making processes	1.1 Identify responsibilities and duties of individuals and community groups 1.2 Investigate and define proposed or existing community governance and decision-making processes 1.3 Collate information on proposed or existing governance issues and arrangements
2. Develop options for community governance and decision-making processes	2.1 Identify opportunities and constraints for development of community governance and decision-making process options 2.2 Consult with community on options for community governance and decision-making processes 2.3 Evaluate options in consultation with community through detailing advantages and disadvantages for each
3. Report on preferred options for implementation	3.1 Select preferred options for implementation based on comparative advantages 3.2 Base options for community governance and decision-making processes on sufficient, valid and reliable information and analysis 3.3 Ensure options for community governance and decision-making processes are consistent with legal frameworks and community and group values, policies, needs, guidelines and procedures 3.4 Implement options for community governance and decision-making processes, and provide for decisions to be made in and actioned in the appropriate timeframe

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD125COM12B

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER512 Plan community governance and decision-making processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess current community governance and decision-making processes
- assess community needs and plan around these needs
- demonstrate high level communication skills
- develop options for community governance and decision-making processes
- report on preferred options for implementation

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices
- community governance and decision-making processes, such as:
 - governance of community resources, enterprises and activities
 - meeting facilitation, negotiation and mediation
 - conflict resolution procedures
 - decision-making methodologies
 - consensus processes
 - qualified decision-making processes
 - protocols
 - codes of conduct
 - recording and sorting decisions, such as *Many Baskets process* (Robin Clayfield)
- strategic planning
- community needs analysis techniques, such as:

- SWOT analysis
- 6 thinking hats (de Bono)
- PMI (de Bono)
- T.O.A.S.T. processes (Robin Clayfield)
- L.O.V.E. processes (Robin Clayfield)
- opportunities and constraints for community development, such as:
 - seeing solutions rather than problems
 - viewing the negative in a positive light
 - modifications or extensions of existing systems to solve inherent problems
 - applying old or simple technology to new or complex problems
 - behaviour change, including organisational change and transformation
 - willingness or unwillingness to participate
 - legal framework requirements
 - vested interests and hidden agendas
- advanced negotiation techniques
- organisational change and development
- group and individual goal setting techniques
- risk management processes and techniques
- action planning methods
- information technology
- legal frameworks obligations and responsibilities

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD101 Support gardening work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide support for gardening work.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters. They identify and seek help with simple problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for gardening work	1.1 Identify required materials, tools and equipment according to lists provided and supervisor's instructions 1.2 Conduct checks on all materials, tools and equipment and tell supervisor if there are insufficient or faulty items 1.3 Use correct manual handling techniques when loading and

Element	Performance criteria
	unloading materials and minimise damage to the load and the vehicle 1.4 Use suitable personal protective equipment (PPE) selected as directed by supervisor and ensure correct fit 1.5 Tell supervisor if any risks are identified
2. Undertake gardening work as directed	2.1 Follow instructions and directions provided by supervisor and ask for clarification when necessary 2.2 Communicate with other staff and clients in a professional manner 2.3 Handle and dispose of materials 2.4 Tell supervisor of there are problems or difficulties in completing work to required standards or timelines 2.5 Undertake gardening work in a safe and environmentally appropriate manner
3. Handle materials and equipment	3.1 Store waste material and debris produced during gardening work in a designated area 3.2 Handle and transport materials, equipment and machinery 3.3 Maintain a clean and safe work site while undertaking landscaping activities
4. Clean up on completion of gardening work	4.1 Return materials to store or disposed of as required 4.2 Clean, maintain and store tools and equipment 4.3 Restore site 4.4 Tell supervisor of work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD101A Support gardening work.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD101 Support gardening work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- prepare materials, tools and equipment
- handle materials and equipment
- follow safe work practices and safety directions
- undertake gardening work as directed
- clean up on completion of landscape work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of gardening work
 - garden tools and equipment
 - maintenance practices for planted areas
 - planting techniques
 - repair and maintenance of garden features
 - safe work practices

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD201 Plant trees and shrubs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manually plant trees and shrubs and other containerised and bare-rooted plants.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for planting operations	1.1 Identify work health and safety hazards and tell the supervisor 1.2 Select and use personal protective equipment (PPE) and ensure correct fit 1.3 Use and maintain tools and equipment for planting 1.4 Mark site out as directed

Element	Performance criteria
	1.5 Control competing plants 1.6 Modify soil as directed
2. Prepare trees and shrubs for planting	2.1 Excavate planting holes 2.2 Water trees and shrubs prior to planting 2.3 Confirm root ball is damp 2.4 Remove trees and shrubs from containers
3. Inspect plants and report problems	3.1 Inspect plant and root ball 3.2 Report dry, water repellent and loose root balls 3.3 Report the presence of symptoms of pests or disease 3.4 Apply root treatments as directed
4. Install trees, shrubs and/or other plants	4.1 Place plants in prepared hole 4.2 Back-fill planting hole and consolidate soil 4.3 Water plants to eliminate air pockets 4.4 Apply mulch as directed
5. Complete work	5.1 Dispose of or recycle soil and waste material from the site to minimise damage to the environment 5.2 Clean and store all tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD201A Plant trees and shrubs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD201 Plant trees and shrubs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- prepare for planting operations
- apply root treatments
- excavate planting holes
- inspect root ball condition
- install plants
- use tools and equipment for planting

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for planting trees and shrubs
 - basic plant structure and the physical and nutritional requirements of plants
 - botany and plant physiology as it applies to planting trees and shrubs
 - factors affecting the timing and method of tree or shrub planting
 - initial establishment needs of young plants
 - mulches and fertilisers
 - planting techniques relating to specific species
 - soil amelioration techniques
 - the effect of adverse outdoor climatic conditions
 - the impact of planting activities on the surrounding environment

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD202 Prepare and maintain plant displays

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and maintain a plant display.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare the display site	1.1 Prepare the display site as instructed 1.2 Select and use materials, tools, equipment and machinery 1.3 Identify hazards and report to supervisor 1.4 Select and use suitable personal protective equipment (PPE)

Element	Performance criteria
2. Install plants	2.1 Place plants in the pattern specified by the plan 2.2 Choose accessories and materials specified in the plan
3. Maintain plants	3.1 Monitor the health of the plants to ensure they retain optimum appearance 3.2 Fertilise and water plants to maintain optimum health and appearance 3.3 Replace plants when no longer at optimum health and appearance 3.4 Remove rubbish, litter and decaying material from plants, pots and surrounds to maintain optimum appearance of display

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD202A Prepare and maintain plant displays.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD202 Prepare and maintain plant displays

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- use hand tools and machinery for preparation of plant displays
- interpret planting plans
- calculate quantities of plants and materials
- complete plant display in a timely manner
- use fertilisers and chemicals for maintenance

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant display maintenance
 - common problems occurring with display plants
 - maintenance techniques for annuals and/or indoor displays
 - planting techniques for annual bed displays
 - remedial action required for display plants displaying health problems

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD203 Prune shrubs and small trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prune shrubs and small trees that are less than three meters in height while standing on the ground.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify pruning requirements	1.1 Identify work health and safety hazards and report to the supervisor 1.2 Select and use personal protective equipment (PPE) and ensure correct fit 1.3 Select appropriate pruning tools and equipment for the location,

Element	Performance criteria
	access and size of material to be pruned 1.4 Identify plants that require pruning and confirm with supervisor 1.5 Confirm with the supervisor pruning method to be used
2. Undertake pruning of shrubs and small trees	2.1 Carry out pre-operational and safety checks on pruning tools and equipment 2.2 Operate machinery, equipment and tools as required 2.3 Carry out pruning as directed 2.4 Use correct manual handling techniques when lifting or moving heavy loads 2.5 Record and report work outcomes to the supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD203A Prune shrubs and small trees.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD203 Prune shrubs and small trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- identify pruning requirements
- identify and report site and tree hazards
- recognise plants, shrubs and trees
- prune shrubs and small trees
- use appropriate tools, equipment and safety equipment
- minimise environmental disturbance

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of pruning
- basic botany and physiology as they apply to pruning
- correct and safe use and care of tools and equipment
- effects of pruning on plant growth and habit
- plant health principles
- plant names and growth habits
- use of hygienic practices
- AS4373-2007 Pruning of amenity trees

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD204 Transplant small trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to transplant small trees and shrubs without the use of lifting machinery or equipment.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for tree or shrub removal	1.1 Confirm transplanting instructions confirmed with the supervisor 1.2 Identify work health and safety hazards and report to the supervisor 1.3 Locate all underground services as outlined by supply authorities 1.4 Prepare and use tools and equipment appropriate to the task being

Element	Performance criteria
	undertaken 1.5 Select and use suitable personal protective equipment (PPE)
2. Prepare tree or shrub and undertake earthworks for removal	2.1 Prepare crown as required by the species and time of removal 2.2 Clear and water site prior to transplanting 2.3 Confirm root ball width and depth with the supervisor to ensure the root system can colonise new ground, depending on the needs of the species and size of the specimen
3. Remove tree or shrub from original site	3.1 Excavate the soil around the root zone 3.2 Prune tree roots where required to meet the appropriate Australian Standard 3.3 Stabilise tree as the root system is undercut and apply anti-transpirants as a root soak or foliar spray to ensure viability of the plant is maintained 3.4 Bind root ball with appropriate material to ensure adequate soil is retained and kept moist prior to transportation and installation 3.5 Lift tree and secure for potential storage or transportation using safe lifting techniques 3.6 Prepare and handle tree or shrub to minimise damage during handling and transportation
4. Replant tree or shrub in new environment	4.1 Provide appropriate drainage to ensure root system survival is maintained according to the needs of the species and conditions of the planting site 4.2 Modify soil according to the cultural requirements of the species 4.3 Plant tree or shrub in prepared hole 4.4 Install plant support devices as instructed
5. Complete transplant operation	5.1 Maintain transplanted plant with regular aftercare activities appropriate to the requirements of the species 5.2 Clean, maintain and store tools and equipment 5.3 Collect waste and dispose of or recycle to minimise damage to the external environment 5.4 Maintain records of transplant

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD204A Transplant small trees.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD204 Transplant small trees

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- identify and report site and tree hazards
- prepare for tree or shrub removal
- prepare crown, root ball and earthworks
- prune roots where appropriate
- use tools and equipment in a safe and effective manner
- remove tree or shrub from original site
- transplant tree or shrub in selected site
- maintain transplanted specimen
- install support devices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of transplanting trees
 - causes of damage or drying-out of trees and shrubs, and prevention methods
 - factors affecting the timing and method of lifting trees and shrubs
 - techniques of securing and anchoring transplanted trees and shrubs
 - the effect of adverse outdoor climatic conditions, such as rain, hail, or very high ultraviolet radiation, which may prevent or impede transplanting operations
 - transference of soil or root-borne diseases
 - transplanting practices associated with different soil types and relationships to plant care
 - trees and shrubs that are most suited to transplanting

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD205 Prepare a grave site

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare a gravesite.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare site for excavation	1.1 Identify work health and safety hazards, assess risks and report to the supervisor 1.2 Select and use personal protective clothing (PPE) and equipment 1.3 Select, prepare and use tools, equipment and machinery 1.4 Inspect surrounding monuments, masonry or headstones that threaten the stability of the new gravesite and remove if

Element	Performance criteria
	<p>necessary, after consultation with supervisor</p> <p>1.5 Use sludge pump to remove excess water if required</p> <p>1.6 Mark gravesite out to suit coffin dimensions</p>
2. Assist with the excavation	<p>2.1 Assist with excavation of grave</p> <p>2.2 Shore sides of grave where depth of grave exceeds 1.5 metres or as instructed</p> <p>2.3 Cover surface area for 400 mm from the edge of the excavation with an approved material to ensure the integrity and stability of the soil</p> <p>2.4 Secure gravesite with protective restraints to limit access to the site while being established and when left unattended</p>
3. Backfill and enhance the gravesite following burial	<p>3.1 Back-fill grave with soil free from large lumps, plant debris or waste material</p> <p>3.2 Use backfilling techniques to consolidate the soil, to minimise cavities and to restore the ground to its original level</p> <p>3.3 Replace surrounding monuments, masonry or headstones as necessary</p> <p>3.4 Dispose of waste material and plant debris removed from the gravesite in an environmentally safe manner</p> <p>3.5 Enhance gravesite as instructed</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD205A Prepare a grave site.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD205 Prepare a grave site

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- prepare site for excavation
- assist with the site excavation
- shore up sides of grave as required
- backfill and enhance the gravesite following burial

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of grave site preparation
 - safe work practices working in and around confined spaces
 - the environmental implications of pumping sludge water from an excavation site and the effects it may have on surrounding gravesites
 - work health and safety responsibilities of employees

Assessment Conditions

Assessors must satisfy current standards for RTO's.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD206 Conduct visual inspection of park facilities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out routine visual inspections of park and recreational facilities to identify visible hazards and existing and potential risks.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for visual inspection	1.1 Interpret site plans and inspection checklists and clarify requirements with the supervisor 1.2 Clarify the specific terminology used in checklists 1.3 Identify park site to be inspected and locate on the site plan

Element	Performance criteria
	1.4 Identify park facilities, equipment and services on site from checklist descriptions and site plan
2. Undertake visual inspection	2.1 Inspect park facilities, equipment and services and compare to enterprise presentation standards and workplace health and safety requirements 2.2 Identify work health and safety hazards and adverse environmental impacts and record on the appropriate form 2.3 Report situations requiring urgent action to supervisor
3. Submit report	3.1 Confirm that inspection activity reports and checklists are concise and accurate and comply with enterprise standards 3.2 Forward checklist and report promptly to supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD206A Conduct visual inspection of park facilities.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD206 Conduct visual inspection of park facilities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- prepare for visual inspection of park facility
- carry out a visual inspection of park facility
- determine the extent of problems
- evaluate serious issues that may be present
- identify environmental risks and impacts from site facilities
- rate the condition of facilities
- rate the hazards and associated environmental implications of malfunctioning facilities, equipment and services
- report urgent situations
- complete and submit inspection activity checklist and report

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of park facility visual inspection
 - cleaning, servicing and hygiene requirements of public conveniences
 - hazards investigation and risk assessment
 - effective maintenance and repair work particularly in relation to end use of the facilities and equipment, and the safety of users
 - recognition of the range of park facilities, equipment and services relevant to the enterprise
 - reporting requirements, procedures and materials for use in park inspection
 - terminology used to describe different components of the range of facilities, equipment and services relevant to the enterprise

- the effect of adverse outdoor climatic conditions, such as rain, hail, wind, or very high ultraviolet radiation, on park facilities inspection activities
- hazards that are likely to be encountered by visitors using the park facilities and equipment
- the practical application of site plans, checklist descriptions and presentation standards to locate and effectively assess facilities and equipment against the required parameters
- the relevant Australian Standards

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD301 Implement a plant establishment program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish planting areas in new projects and in programs of extensive replacement and renovation works across a range of situations and environments.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to establish a planting area	1.1 Identify the planting site, planting methods and plant species and cultivars from the site plan 1.2 Select appropriate materials, tools, equipment and machinery 1.3 Carry out pre-operational and safety checks on tools, equipment

Element	Performance criteria
	<p>and machinery</p> <p>1.4 Identify work health and safety hazards, assess risks and implement controls</p> <p>1.5 Select and use suitable safety and personal protective equipment (PPE)</p> <p>1.6 Maintain a clean and safe work area throughout work</p>
2. Prepare the planting area	<p>2.1 Determine the layout of services, check depths against the site plan and report discrepancies to the supervisor and the relevant authority</p> <p>2.2 Carry out earthworks as directed</p> <p>2.3 Select and apply additives as required by site conditions</p> <p>2.4 Water the planting site where required</p> <p>2.5 Mark out the positions of plants on site</p> <p>2.6 Remove debris and pollutants from the site and dispose of in an environmentally safe manner</p>
3. Undertake planting operation	<p>3.1 Inspect all plants for health, vigour and well-established root systems prior to being planted</p> <p>3.2 Return plants with major defects to the supplier or set aside to be returned</p> <p>3.3 Trim or treat plants with minor defects to maintain health and vigour</p> <p>3.4 Space plants appropriately</p> <p>3.5 Use planting methods that comply with the growing requirements of individual plant species and cultivars</p> <p>3.6 Provide newly placed plants with post-planting care</p> <p>3.7 Prune, where necessary, according to the needs of the species and cultivar to ensure plants develop a sound framework for their growth and habit</p>
4. Review the plant establishment works	<p>4.1 Review the plant establishment program as required</p> <p>4.2 Identify, record and report plants incorrectly planted, or situations that will prevent plants from reaching their full potential</p> <p>4.3 Take remedial action to ensure all requirements of the plant establishment program are implemented</p>
5. Complete establishment works	<p>5.1 Complete earthworks and surface finishes</p> <p>5.2 Remove waste material from the planting site and dispose of in an environmentally safe manner</p> <p>5.3 Clean, maintain and store equipment, tools and machinery</p> <p>5.4 Record work outcomes and report to the supervisor</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD301A Implement a plant establishment program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD301 Implement a plant establishment program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- prepare to establish a planting area
- interpret site plans and plant establishment specifications
- measure quantities, calculate material requirements, area, volume, ratios and application rates
- carry out planting operations
- ensure planting methods comply with plant species and cultivar growing requirements
- prune plants to ensure they develop a sound framework for their growth and habit
- inspect and determine plant quality and health
- record and report work outcomes

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant establishment
 - soils and soil amelioration techniques
 - the identification of pests and diseases, plant symptoms of infections, treatment threshold levels, recommended treatments, methods of application and environmental implications
 - the objectives of the plant establishment program, including finished plant forms, site appearance, end use and time constraints
 - the physiology of required plant species and cultivars, culture and planting procedures, including growth rates, main nutrient and water requirements, deficiency symptoms, recommended treatments and associated environmental implications

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD302 Plan and maintain plant displays

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and establish plant displays either indoors or as seasonal displays of annual and perennial plants in garden beds.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare plans for plant displays	1.1 Inspect the display site for aesthetic, environmental and physical attributes 1.2 Identify occupational Health and Safety (OHS) hazards, assess risks assess and implement controls

Element	Performance criteria
	1.3 Select, use and maintain personal protective equipment (PPE) according to procedures 1.4 Identify on the display plan the location and projected life of the display 1.5 Identify on the display plan the plant types suitable for aesthetic effects, environmental and physical attributes 1.6 Identify on the display plan actions, timelines and work organisation, in consultation with the supervisor or manager. 1.7 Confirm the availability of plants, materials and services for preparing the display 1.8 Select materials, tools, equipment and machinery according to the display plan and enterprise work procedures
2. Select plants	2.1 Select plants that are healthy and vigorous and comply with enterprise specifications for quality. 2.2 Select number and size of plants according to the display plan. 2.3 Select plants that display the ability to survive in the display position for the length of the display
3. Place plants	3.1 Plants are placed in a pattern specified by the plan 3.2 Accessories and materials are chosen as specified in the plan 3.3 Work is undertaken according to OHS requirements
4. Maintain plants	4.1 Monitor the health of the plants to ensure they retain optimum appearance. 4.2 Fertilise and water plants to maintain optimum health and appearance. 4.3 Replace plants when they are no longer at optimum health and appearance. 4.4 Remove rubbish, litter and decaying material plants, pots and surrounds to maintain optimum appearance of display.

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD302A Plan and maintain plant displays.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD302 Plan and maintain plant displays

Modification History

NotReleased	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- prepare design plans and specifications
- determine spatial measurements of display site
- calculate number of plants and materials
- select plants according to the display that comply with quality specifications and the ability to survive for the length of the display.
- place the plants according to the display plan and pattern
- complete plant display in a timely manner
- maintain the plant display

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant display maintenance
 - aim and purpose of building plant displays
 - common problems occurring with display plants
 - design principles for plant displays
 - features and characteristics of a range of plants used for display purposes
 - growing requirements of a range of common plants used in plant displays
 - remedial action required for display plants displaying health problems

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD303 Perform specialist amenity pruning

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to perform specialist amenity pruning using specialist pruning techniques.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for specialist amenity pruning	1.1 Inspect plants and determine pruning strategy according to the plants' characteristics or desired outcome 1.2 Identify common diseases, pests and nutrition deficiencies in trees 1.3 Identify work health and safety hazards, assess risks and implement suitable controls

Element	Performance criteria
	1.4 Select and prepare pruning tools and equipment required by the pruning program 1.5 Consult references where required to determine best pruning strategies for special plants
2. Undertake specialist pruning	2.1 Undertake pruning using established and specialist pruning techniques 2.2 Adhere to site environmental procedures 2.3 Assess pruned plants to determine if pruning requirements have been met 2.4 Carry out remedial work where required
3. Complete work	3.1 Dispose of or recycle waste material from the site to minimise damage to the environment 3.2 Clean, maintain and store tools, equipment and machinery 3.3 Clean and clear site 3.4 Record completed pruning and report to supervisor or the client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD303A Perform specialist amenity pruning.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD303 Perform specialist amenity pruning

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- prepare for pruning
- sharpen and maintain tools required for pruning
- meet pruning program requirements
- carry out pruning using specialist pruning techniques
- store and carry tools safely
- assess pruning quality
- clean and clear pruning site
- record and report completed pruning to supervisor or client

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of specialist pruning
 - anatomy and physiology of plants, shrubs and trees
 - AS4373-2007 Pruning of amenity trees
 - compartmentalisation of decay in trees (CODIT)
 - effect on plant growth and habit after pruning
 - identification of plant species and their pruning requirements
 - local government tree protection and preservation regulations
 - principles and methods of specialist pruning to achieve given objectives
 - specialist tools and equipment

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD304 Implement a landscape maintenance program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a landscape maintenance program of newly constructed or established landscapes.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Interpret a landscape maintenance program	1.1 Determine the scope of the maintenance works from the landscape maintenance program 1.2 Determine the frequency of maintenance works and implement 1.3 Establish landscape maintenance standards 1.4 Plan and prepare maintenance tasks

Element	Performance criteria
	1.5 Identify occupational health and safety (OHS) hazards, assess risks and implement controls
2. Monitor and maintain landscape areas	2.1 Prepare or use a site inspection checklist 2.2 Identify remedial action, repairs, renovations, treatments and replacements required to restore site to full effectiveness 2.3 Implement maintenance tasks 2.4 Report items which are beyond the scope of the maintenance program to the nominated person 2.5 Record items requiring further action 2.6 Evaluate and record results of maintenance works

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD304A Implement a landscape maintenance program.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD304 Implement a landscape maintenance program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- determine maintenance requirements
- implement maintenance operations
- treat diseased plants
- repair and renovate landscape structures and features
- identify and items requiring further action
- evaluate and record results of maintenance works

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of landscape maintenance
 - actions permitted in the event of variations to maintenance programs or contracts
 - horticultural practices for heritage and cultural areas
 - characteristics of a range of plants
 - common problems occurring in a range of plants
 - landscape maintenance programs or contracts
 - optimal growing conditions for a range of plants
 - principles and applications of an integrated pest management (IPM) program

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD305 Conduct operational inspection of park facilities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to inspect park or recreational facilities to identify hazards, existing and potential risks and non-conformities with Australian Standards and workplace health and safety requirements.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for operational inspection	1.1 Determine, from the operational request, the specific facilities and equipment to be inspected and purpose of the inspection 1.2 Select required tools and equipment for testing and inspection 1.3 Carry out pre-operational and safety checks on tools and

Element	Performance criteria
	equipment 1.4 Prepare appropriate checklists and reporting formats to suit the application 1.5 Identify the different types of facilities from checklist descriptions 1.6 Clarify specific terminology used in checklists with the supervisor 1.7 Identify workplace health and safety hazards, assess risks and implement controls 1.8 Select and use appropriate personal protective equipment (PPE)
2. Undertake operational inspection	2.1 Identify and record modes of non-conformity with Australian Standards, work health and safety guidelines and enterprise standards 2.2 Identify and record hazards and indications and signs of hidden faults 2.3 Ensure checklist entries are concise and accurate
3. Finalise the park inspection	3.1 Report to supervisors situations requiring urgent action or closure of facilities 3.2 Note recommendations to rectify non-conformities, as required 3.3 Complete an inspection report and submit to the client or supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD305A Conduct operational inspection of park facilities.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD305 Conduct operational inspection of park facilities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- determine the purpose of the inspection and the facilities and equipment to be inspected and tested
- carry out pre-operational and safety checks on tools and equipment
- clarify specific terminology used in checklists with the supervisor
- identify workplace health and safety hazard, assess risks and implement controls
- interpret design symbols and terminology
- compare actual measurements of inspected components with legal, workplace health and safety and/or enterprise standards and specifications
- determine the degree of urgency to report serious situations
- evaluate the condition of facilities
- use proforma reporting and work procedure documents

Knowledge Evidence

The candidate must demonstrate knowledge of:

- different modes of non-conformity that may be identified in reference to relevant Australian Standards and work health and safety requirements
- identification, assessment and control of hazards
- inspection procedures and techniques, and legal and enterprise reporting requirements for maintenance, repair and replacement recommendations
- principles and practices of park facility operational inspections
- terminology used to describe different components of park or recreational facilities and equipment
- operational expectations and enterprise standards for the presentation and working order of a range of park or recreational facilities and equipment

- the range, use and safety parameters of park or recreational facilities and equipment, their material construction and maintenance requirements
- work health and safety legislative requirements and codes of practice associated with public use of park facilities

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD306 Implement a maintenance program for an aquatic environment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a maintenance program for an aquatic environment in a park or garden setting.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for maintenance activities	1.1 Identify, interpret and apply requirements for the maintenance of the aquatic environment 1.2 Select and prepare tools, equipment and machinery for use 1.3 Identify work health and safety hazards, assess risks and

Element	Performance criteria
	implement controls 1.4 Select and use appropriate personal protective equipment 1.5 Identify environmental implications associated with maintenance activities and report to supervisor
2. Maintain aquatic organisms	2.1 Identify indigenous, exotic and pest aquatic animals and plants for the specific aquatic environment 2.2 Monitor aquatic plants and animals and record and maintain relevant data and apply to aquatic plant maintenance activities 2.3 Report issues to supervisor, with recommendations for action 2.4 Implement control methods for excess aquatic animals and plants, and identified pest animals and plants 2.5 Process waste plant and animal material with regards to environmental issues
3. Maintain water quality	3.1 Monitor water quality where appropriate for the aquatic environment and the input water resource 3.2 Record monitoring data, maintain and apply to water quality maintenance activities 3.3 Remove debris and process using appropriate equipment 3.4 Report water quality issues to supervisor, with suggestions for remedial action 3.5 Discharge water, clean environment, and recharge water from the designated storage area or other input water resource

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD306A Implement a maintenance program for an aquatic environment.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD306 Implement a maintenance program for an aquatic environment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- interpret site plans and maintenance program requirements, and use proforma reporting, recording, analysis and work procedure documents
- measure materials and aquatic site dimensions
- schedule and implement monitoring activities correctly and record, interpret and apply monitoring data

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of aquatic environment maintenance
 - aquatic systems ecology
 - correct safety procedures working from boats or adjacent to large bodies of water
 - enterprise systems and procedures for the safe operation and maintenance of machinery and equipment in aquatic environments
 - food chain and nutrient cycling in aquatic systems
 - recognition, physiology and biological characteristics of animals and/or plants specific to the aquatic environment
 - regulations and industry standards for water quality requirements in association with specified use
 - relevant legislation regarding water pollution and management
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental impacts
 - wildlife habitats associated with the aquatic environment

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD401 Design plant displays

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design plant displays in a wide range of locations and situations, buildings and structures. It applies to permanent, semi-permanent and temporary displays of plant life under a range of gardening, exhibition, visual merchandising, marketing and commercial leasing and hiring activities.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop the design	1.1 Consult with client to establish the purpose and requirements of

Element	Performance criteria
concept plan	the design 1.2 Evaluate site or location for aesthetic, environmental and physical attributes 1.3 Determine timelines for display and incorporate into the plan 1.4 Clarify budget parameters for concept plan with client or manager 1.5 Develop concept plan using common horticultural conventions
2. Ensure compliance with the design plan	2.1 Present concept plan to client and negotiate agreement on design 2.2 Develop final design plan documentation 2.3 Inspect plants and display materials prior to installation to ensure they meet required quality standard 2.4 Inspect plant display to ensure compliance with design plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD401A Design plant displays.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD401 Design plant displays

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- develop maintenance programs
- evaluate sites or locations to determine the effect of aesthetic, environmental and physical attributes on nature of display
- research and analyse information about plant and materials specifications, cultural requirements and environmental requirements
- consult with clients

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant display design
- characteristics of a range of plants used in plant displays
- growth and maintenance requirements of plants in natural and artificial environments
- horticultural conventions for design plans
- plant selection
- principles of design
- processes and techniques for preparing, costing and documenting plans for plant displays
- plants commonly used in plant displays

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD402 Plan a plant establishment program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a plant establishment program and a relevant site plan and specifications.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Carry out preliminary planning activities for the plant establishment	1.1 Consult with client and clarify preferences and requirements for the plant establishment program 1.2 Research plant species and cultivars; and local by-laws and

Element	Performance criteria
program	<p>restrictions that may affect the plant establishment program</p> <p>1.3 Identify environmental implications of the planned program and, if necessary, report to relevant personnel for further research</p> <p>1.4 Develop a concept plan that reflects client preferences and requirements and takes into account site factors and any identified environmental requirements</p> <p>1.5 Present the concept plan to the client for discussion and approval</p>
2. Determine requirements of the plant establishment program	<p>2.1 Identify plant species and cultivars appropriate to the site and consistent with the agreed concept plan</p> <p>2.2 Calculate and cost the required quantity and confirm availability with suppliers</p> <p>2.3 Select plant establishment procedures that suit the characteristics of available plant materials, the resources and equipment available and environmental factors that would affect the success of the plant establishment program</p> <p>2.4 Identify post-planting care requirements</p> <p>2.5 Identify and cost resources, tools, equipment and machinery required for planting and post-planting care and confirm availability confirmed with suppliers, contractors and appropriate personnel</p> <p>2.6 Identify work health and safety hazards, assess risks and develop controls, estimate costs and documented in the plan</p> <p>2.7 Outline staged implementation and development, where appropriate, and provide access for future works provided</p> <p>2.8 Determine timelines for preparations, planting and post-planting care, taking into account the needs of the plant species and cultivars, site conditions, and any other planning requirements</p>
3. Prepare and document the plant establishment program and specification	<p>3.1 Produce a scaled site plan which can be readily interpreted and understood by on-site personnel</p> <p>3.2 Develop and document detailed on-site procedures and schedules required for the planting of the site and post-planting care of plants</p> <p>3.3 Prepare detailed plan, specifications and quotation based on the requirements of the program, and present to the client for acceptance</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD402A Plan a plant establishment program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD402 Plan a plant establishment program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- plan a plant establishment program
- consult with clients
- document plans, specifications and work procedures
- comply with legislative requirements
- write plans reports that staff, clients and contractors can understand
- calculate the cost and spatial and logistical requirements of components of the plant establishment program

Knowledge Evidence

The candidate must demonstrate knowledge of:

- identification, propagation and establishment techniques of specific plant species and cultivars
- the advantages and disadvantages of a range of plant establishment procedures
- maintenance requirements and practices for specific plant species and cultivars, prior to and after initial establishment
- processes and techniques for preparing, costing and documenting plans for and scheduling plant establishment activities
- processes and techniques for scheduling plant establishment activities

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD501 Manage plant cultural practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage a plant cultural program.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Define the plant cultural requirements of the site	1.1 Survey and record the range of plant life areas and plant species 1.2 Determine, acquire and maintain materials, equipment and labour required for implementation and maintenance

Element	Performance criteria
	<p>1.3 Identify work health and safety hazards, assess risks and implement appropriate controls</p> <p>1.4 Assess staff capability and skills and knowledge against implementation and maintenance requirements</p> <p>1.5 Implement staff training and development as required to bridge gaps</p>
2. Develop a plant cultural program for the site	<p>2.1 Determine plant cultural practices over the duration of a documented planning period</p> <p>2.2 Sample, prepare and test soil types and growing media through field tests by staff and laboratory tests by specialist services</p> <p>2.3 Allocate resources and develop appropriate budgets for the implementation period</p> <p>2.4 Source and contract required specialist cultural practice services</p> <p>2.5 Develop a schedule of operations for the implementation period</p> <p>2.6 Allow for environmental and cultural contingencies in the site program</p>
3. Manage the implementation of the program	<p>3.1 Implement routine and contracted services</p> <p>3.2 Interpret test results and appropriately ameliorate soils and growing media</p> <p>3.3 Allocate and supervise staff and appraise for performance</p> <p>3.4 Confirm that materials and equipment are used according to work health and safety requirements and documented safe operating procedures</p> <p>3.5 Log progress reports detailing the on-going results of the plant cultural program</p>
4. Monitor, review and document the program	<p>4.1 Itemise daily workplace records, weekly or monthly expenses, and other information relevant to the plant cultural program in registers or diaries</p> <p>4.2 Evaluate costs and expenditure against budgets and document in a report</p> <p>4.3 Monitor, and evaluate routine and contracted services and record performance audits</p> <p>4.4 Compare the plant cultural program to previous programs and make appropriate adjustments</p> <p>4.5 Document results in a report covering all items of recorded information in the program</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD501A Manage plant cultural practices.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD501 Manage plant cultural practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- allocate resources
- contract specialist services
- determine plant cultural requirements
- develop a plant cultural program and budget documentation
- manage contingencies
- plan schedule of operations
- supervise, monitor and appraise the performance of work team and contracted services

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant cultural practice management
 - budgeting and planning
 - operation and maintenance of irrigation systems
 - plant anatomy, physiology, morphology, taxonomy and nomenclature
 - plant cultural practices
 - plant identification and selection
 - plant maintenance practices
 - plant nutrition requirements and practices
 - soil types, properties, field tests and sampling techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PGD502 Plan the restoration of parks and gardens

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan the restoration of parks and gardens of historical or cultural significance, develop a comprehensive restoration program of works and develop a relevant site plan, specifications and work procedures.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Carry out preliminary planning activities for	1.1 Consult with client and confirm preferences and requirements for the park or garden

Element	Performance criteria
restoration works	<p>1.2 Assess the site for biophysical factors, historical and cultural attributes, services and site modifications</p> <p>1.3 Research the legal attributes and local by-laws and restrictions that may affect the plan for restoration works</p> <p>1.4 Identify the environmental implications of the planned restoration works and, if necessary, report to relevant personnel for further research</p> <p>1.5 Develop a concept plan that reflects client preferences and requirements and takes into account heritage issues, site factors and any identified environmental requirements and present to the client for discussion and approval</p> <p>1.6 Consult other professionals to assist in research and planning of restoration works to meet legislative requirements</p>
2. Determine requirements of restoration works	<p>2.1 Identify plants that are appropriate to the site, consistent with the agreed concept plan and the original design philosophy, and take into consideration historical and cultural values</p> <p>2.2 Calculate and cost the required quantity of plants and confirm availability and genetic integrity with suppliers</p> <p>2.3 Select restoration procedures that are consistent with the agreed concept plan, account for the characteristics of available plant materials, resources and equipment and account for the environmental factors affecting the success of the restoration works</p> <p>2.4 Include maintenance of softscape and hardscape components of the park or garden</p> <p>2.5 Identify and cost resources, tools, equipment and machinery required for the planting and ongoing maintenance of the restoration works and confirm availability with suppliers, contractors and appropriate personnel</p> <p>2.6 Identify work health and safety hazards, assess risks and develop controls</p> <p>2.7 Outline staged implementation and development, where appropriate, including providing access for future works as required by client and site requirements</p> <p>2.8 Determine timelines for preparations, planting and maintenance, taking into account the needs of the restoration species, the softscape and hardscape components, site conditions, and other relevant planning requirements</p>
3. Prepare and document the restoration plan and specifications	<p>3.1 Prepare a detailed plan, specifications and quotation based on horticultural conventions, original design philosophy and the requirements of the restoration works, and present to the client for acceptance</p> <p>3.2 Produce a scaled site plan which can be readily interpreted and</p>

Element	Performance criteria
	<p>understood by on-site personnel</p> <p>3.3 Develop and document detailed on-site procedures and schedules required for the restoration of the park or garden and its ongoing maintenance</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD502A Plan the restoration of parks and gardens.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD502 Plan the restoration of parks and gardens

Modification History

NRelease	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- determine requirements of the restoration work
- consult with clients
- select restoration procedures that are consistent with the agreed concept plan, appropriate to the site and account for historical and cultural values, available resources and relevant environmental factors
- calculate the cost and spatial and logistical requirements of components of the restoration works
- comply with legislative requirements
- research and evaluate information
- prepare and document the restoration plan and specifications
- prepare a site plan that can be understood by on-site personnel

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of park and garden restoration
 - construction procedures, plant selection and cultural practices for historically or culturally significant parks and gardens
 - growth habits and cultural requirements of specific plants under a range of soil and environmental conditions
 - historic parks and gardens management principles and guidelines
 - legislation and regulations relating to heritage sites and restoration works
 - maintenance requirements and practices for specific plants prior to and after initial establishment

- principles of the Australian Natural Heritage Charter, the Draft Guidelines for the Protection, Management and Use of Aboriginal and Torres Strait Islander Cultural Heritage Places and the Burra Charter
- role of project briefs and client consultation processes in planning restoration works
- site evaluation techniques, including methods of analysing the condition of soils, plants and waterways for restoration activities

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD503 Manage parks and reserves

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage parks and reserves.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Implement business, financial, marketing and human resource	1.1 Identify goals and objectives for park or reserve management as well as the goals and objectives or charter of linked external agencies

Element	Performance criteria
management plans	1.2 Identify the actions required to achieve the plans and determine operational objectives 1.3 Consult with appropriate personnel to communicate the roles, responsibilities and performance targets of staff and work groups
2. Implement and monitor a purchasing plan	2.1 Determine the quantity, quality and timing of supply of each input and service as required by the business plan and cash flow budgets 2.2 Confirm that the purchasing system and records facilitate the selection of suppliers and arrangement of orders 2.3 Isolate inefficiencies, stock outs and system problems, identify solutions and modify systems as required 2.4 Establish asset databases and prepare and present asset management reports 2.5 Consider work health and safety requirements in all purchase decisions 2.6 Communicate purchasing plan to responsible personnel, initiate and monitor systems and maintain inventories
3. Schedule park or reserve operations	3.1 Document schedules and timelines of operations in a form that is accessible and understandable to all relevant personnel 3.2 Identify and coordinate quantity, quality and timing of supply of each input and service as required by the financial, physical and human resource requirements of the operation 3.3 Coordinate operations to ensure that available labour matches the quantity and type of work to be completed 3.4 Establish key performance outcomes and indicators to measure performance of all park or reserve operations and personnel 3.5 Undertake benchmarking as required by the particular organisation 3.6 Isolate coordination inefficiencies and problems, identify solutions and modify systems as required
4. Manage enterprise office	4.1 Develop and implement sound office and administrative systems and communications 4.2 Ensure necessary office equipment is available or purchase where necessary and cost effective to do so 4.3 Identify work health and safety hazards, assess risks and implement suitable controls 4.4 Assess and implement innovations in office procedures where appropriate
5. Monitor, review and report on changing conditions	5.1 Establish systems to monitor operational objectives, identify variance from plans and adjust actions where necessary 5.2 Establish systems to monitor the immediate and related

Element	Performance criteria
	environments 5.3 Identify variances likely to affect the achievement of business, financial, marketing and human resource management goals and objectives and report to senior management 5.4 Maintain records, provide reports and document reviews
6. Recommend improvements to operation	6.1 Review operations and identify possible improvements affecting business planning, personnel morale, productivity and systems efficiency 6.2 Document recommendations for improvements to operations that are supported by appropriate evidence and reasoned arguments, and present to senior management

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD503A Manage parks and reserves.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD503 Manage parks and reserves

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- assess environmental impacts on the immediate and related environments and impact reduction techniques
- assess financial systems, prepare and monitor budgets and liaise effectively with consultants and other industry contacts on the spatial and logistical aspects of management systems and on-ground operations
- assign work, receive and interpret staff feedback and consultants reports, and respond effectively to achieve management objectives
- interpret business, financial, marketing and human resource management plans
- research and consult to obtain the information required for effective maintenance and development of the park or reserve

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of park and reserve management
 - asset and resource management
 - budgeting, monitoring systems and allocation of monetary resources
 - legislative and regulatory requirements relevant to parks and reserve land use applications and management activities including OHS, HAZCHEM, dangerous goods, duty of care and Australian Standards as they apply to Parks and Gardens - AS/NZS 4486.1:1997
 - management information systems
 - performance management and benchmarking
 - policies applying across all levels of government and within the specific region, including those under catchment plans

- principles of the Australian Natural Heritage Charter and the Draft Guidelines for the Protection, Management and Use of Aboriginal and Torres Strait Islander Cultural Heritage Places and the Burra Charter
- sports and recreational land use applications and associated environmental implications
- staff training and development principles, practices and techniques
- technologically assisted management tools such as computing systems, software and hardware, and telecommunications equipment

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD504 Develop and implement a streetscape management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and implement a streetscape management plan.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Define the need for a streetscape	1.1 Identify the management plan objectives for the streetscape 1.2 Consult with client and identify brief requirements

Element	Performance criteria
management plan	1.3 Identify a planning team including specialists and consultants
2. Undertake preliminary planning activities	2.1 Identify major stakeholders 2.2 Determine the availability of specialists to assist in management planning work and prepare contracts where required 2.3 Establish timelines for development of the management plan and reporting arrangements to client 2.4 Identify required resources for developing management strategies
3. Prepare a site description	3.1 Identify and map landscape values of the area 3.2 Identify and map physical features and characteristics of the streetscape 3.3 Research land , including current, cultural and historical modifications, and determine and record their effects on the streetscape 3.4 Assess and document physical condition of site 3.5 Document the biological characteristics of the site
4. Analyse site information and description	4.1 Evaluate information in terms of core principles and objectives 4.2 Produce documents, including plans, technical reports and maps 4.3 Determine priorities and key management issues 4.4 Identify and document opportunities and constraints to meeting planning objectives and goals 4.5 Make a presentation to clients and residents and incorporate feedback into planning documentation
5. Identify management strategies	5.1 Identify management strategies that address defined objectives 5.2 Design management strategies to alleviate existing impacts or to target management action 5.3 Cost management strategies and compare to existing budgets and available resources 5.4 Plan implementation of work to prioritise outcomes and management resource allocation 5.5 Consult with clients and residents and incorporate feedback into documentation
6. Prepare the management plan	6.1 Develop a draft management plan that includes site information and management strategies 6.2 Consult with stakeholders and clients and incorporate agreed changes into the final plan 6.3 Present final plan to client

Element	Performance criteria
7. Implement the management plan	7.1 Implement the management plan within predetermined budget, and according to the schedule and strategies set out in the plan 7.2 Modify the implementation strategy to address on-going feedback from clients and residents 7.3 Provide reports to clients and residents on the progress of implementation works

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD504A Develop and implement a streetscape management plan.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD504 Develop and implement a streetscape management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- define the need for a management plan
- undertake preliminary planning activities
- analyse site information and description
- identify management strategies
- prepare the management plan
- prepare a site description
- implement the management plan

Knowledge Evidence

The candidate must explain:

- principles and practices for streetscape management planning
 - basic civil design
 - community consultation processes
 - horticultural, landscape and arboricultural practices used in streetscape management
 - landscape assessment, survey and analysis techniques
 - management planning principles and issues
 - soil, plant and water testing processes and procedures, interpretation and application of results

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPGD505 Conduct comprehensive inspection of park facilities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to conduct a compliance audit of park or recreational facilities to identify non-conformities with Australian Standards, legislative and work health and safety requirements, as well as manufacturers' standards.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Parks and gardens (PGD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for comprehensive	1.1 Determine the specific facilities and equipment to be inspected as well as the purpose of the inspection as outlined in the operational

Element	Performance criteria
inspection of park facilities	request 1.2 Identify the tools and equipment for testing and inspection and confirm availability with appropriate personnel 1.3 Carry out pre-operational and safety checks on tools and equipment 1.4 Prepare appropriate checklists and reporting formats to suit the activity 1.5 Identify the types of facilities from checklist descriptions
2. Undertake comprehensive inspection of park facilities	2.1 Identify and record instances of non-conformity with Australian Standards, work health and safety guidelines and manufacturers' standards 2.2 Undertake inspections for structural integrity in an efficient and safe manner, according to enterprise policy. 2.3 Identify and detail safety risks and hazards and situations. 2.4 Ensure that checklist entries are concise and accurate. 2.5 Undertaken inspections according to OHS requirements.
3. Assess age and predict effective lifespan of existing park facilities	3.1 Identify the manufacturer of playground equipment and structures through reference to original plans and specifications 3.2 Determine and record the age and future lifespan of park facilities 3.3 Estimate and record the cost of repair or replacement of park facilities
4. Submit report and recommendations	4.1 Address situations requiring urgent action 4.2 Prepare concise and accurate reports and submit to management 4.3 Review existing management systems, particularly regarding frequency of inspection, and make improvements in consultation with management 4.4 Make recommendations for future action that are consistent with industry standards and best practice 4.5 Submit collected data and information for inclusion on the asset management system

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPGD505A Conduct comprehensive inspection of park facilities.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPGD505 Conduct comprehensive inspection of park facilities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- prepare for a comprehensive inspection of park facilities
- carry out a comprehensive inspection of park facilities
- interpret design symbols and terminology
- interpret standards, specifications and legal requirements
- determine age and calculate effective lifespan of existing park facilities
- estimate costs of repair or replacement

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of park facility inspection
 - different modes of non-conformity that may be identified in relation to specific park facilities and equipment
 - hazard identification, assessment and control
 - information management systems such as AS4456
 - hazards associated with conducting a comprehensive inspection of park facilities and equipment, and the controls necessary to remove or minimise associated risks
 - park facilities and equipment including installation methods, intended use, intended users and safety parameters
 - practical understanding of inspection and auditing procedures and techniques, and legal and enterprise reporting requirements for recommendations on maintenance, repair and replacement of park facilities
 - practical understanding of the terminology used to describe different components of park facilities and equipment

- relevant national industry standards such as AS486.1, AS4422, AS1924.1 and AS1924.2)
- work health and safety legislative requirements and Codes of Practice

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC504 Manage equine nutrition

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit applies to owners, managers and supervisors of equine enterprises with responsibility for the management of the nutritional requirements of a diverse range of performance horses. It covers all aspects of feeding plan development, implementation and monitoring as well as the selection and management of pasture for horses.

The work functions within this unit require the demonstration of ration formulation based on digestive physiology and anatomy, scientific evidence, industry practice, and the identification of and appropriate response to nutritional-related disorders.

This unit applies to individuals working in all horse industry sectors including training and competition centres, stud farms, agistment centres and riding schools.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Performance Horse (PHR)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Determine the nutritional requirements of horses	1.1 Identify credible sources of information on equine nutrition relevant to enterprise needs including scientific and technical literature, historical records and industry practice information 1.2 Analyse research findings to determine credibility, relevance and currency of information 1.3 Determine the nutritional needs of horses of various classes based on research findings relevant to enterprise requirements 1.4 Apply relevant research findings to the management of enterprise nutrition practices
2. Manage ingredients for horse rations	2.1 Identify suitable nutrients for inclusion in an equine diet according to the individual needs of each horse, availability, quality and cost 2.2 Organise for laboratory testing to determine the quality and quantities of ingredients required for ration formulation 2.3 Implement safe, secure and hygienic storage of feed and ingredients 2.4 Calibrate measuring equipment and calculate quantities at regular intervals
3. Formulate and modify effective feeding plans, rations and methods	3.1 Develop a feeding plan to supply nutritional requirements to meet appropriate horse condition, performance and health outcomes 3.2 Formulate rations on the basis of identified nutritional requirements, digestive physiology and anatomy, and availability of feedstuffs 3.3 Implement feeding methods and techniques to support natural feeding behaviours 3.4 Adapt feeding plan to respond to variations in nutritional requirements and seasonal conditions 3.5 Apply a cost-effective approach to sourcing and supplying required nutrients 3.6 Assess and manage the environmental impacts of supplying feedstuffs
4. Monitor and manage the feeding of horses	4.1 Supply rations to horses according to enterprise schedules and requirements 4.2 Ensure feeding records and feed orders are maintained, monitored and prepared according to enterprise requirements 4.3 Monitor the implementation of the program using appropriate measures to ensure the goals of the feeding plan are achieved 4.4 Monitor and document reactions to changes in feed types, ingredients or schedules 4.5 Develop and implement a plan to manage documented adverse reactions to rations

Element	Performance criteria
	4.6 Monitor, review and record the feeding plan and implement improvements and adjustments as required
5. Evaluate health implications of feeding plans, rations and methods	5.1 Monitor the health of horses for signs of inadequate nutrition or nutrition-related diseases 5.2 Research and implement solutions for identified nutrition-related health problems and seek veterinarian or professional advice where necessary 5.3 Implement alternative feed regimes, diets or methods to counter the effects of poor nutrition 5.4 Implement strategies to prevent the development of nutrition-related diseases
6. Manage pasture for horses	6.1 Identify and select pasture species on the basis of nutritional value, persistence under grazing by horses and environmental requirements 6.2 Identify the deleterious effects of pasture species for various classes of horses and develop a management strategy to ensure herd health 6.3 Identify and remove plants poisonous to horses from pastures and areas accessed by horses 6.4 Develop and implement a pasture management plan to maximise nutritional value, minimise negative health impacts and minimise negative environmental impact

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHR504 Manage equine nutrition

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and evaluate feed types, pasture species, plants poisonous to horses
- identify the nutritional needs of a wide range of horse classes, breeds, ages and categories
- formulate, supply and store rations for a range of horses to meet identified nutritional needs
- identify feed suppliers
- assess horse body condition score
- apply knowledge of anatomy and physiology to the formulation of diets and management of equine nutrition
- identify and manage nutrition related health disorders
- undertake independent research on equine nutritional and health topics and evaluate findings for credibility and relevance
- apply research findings to the management of equine nutrition
- manage pastures for horses to maximise nutritional content, control weeds and minimise environmental degradation
- apply literacy skills to read and produce written documentation such as scientific reports, product specifications, feed plans and reports
- apply verbal communication skills to communicate with clients, staff, veterinarians and industry professionals
- apply numeracy skills to the computation of rations, nutrient budgets feeding schedules, weights and measures, cost calculations
- apply appropriate animal welfare practices relevant to enterprise and legislative requirements and in accordance with relevant Prevention of Cruelty to Animals acts
- apply work health safety practices relevant to enterprise and legislative requirements

- apply biosecurity and environmental practices relevant to enterprise and legislative requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the main structures and functions of the digestive system and the sites and mechanisms of digestion
- the rate of passage of different nutrients and feedstuffs
- feed types and sources
- feeding systems
- classes of horses and related nutrient needs
- nutrient classes and their values
- credible sources of information regarding equine nutrition, feeding and related health issues
- feed storage methods
- ration formulation methods
- individual horse feeding behaviour
- herd behaviour as it relates to supplying and managing nutrition
- nutrition-related health and behaviour impacts
- pasture species and plants poisonous to horses
- pasture management techniques and the environmental impacts of horse grazing behaviour on pastures
- work health safety standards, policies and procedures relevant to enterprise and legislative requirements
- biosecurity standards, policies and procedures relevant to enterprise and legislative requirements
- animal welfare standards, policies and procedures relevant to enterprise and legislative requirements
- environmental management standards, policies and procedures relevant to enterprise and legislative requirements

Assessment Conditions

Assessment may be conducted in a simulated or real work environment.

Performance should be demonstrated consistently over time and in a suitable range of contexts.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PHT101 Support horticultural production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare materials, tools and equipment for work; complete routine horticulture production assistance work, including the safe use and operation of farm tools and equipment; clean up and dispose of waste consistent with environmental and enterprise requirements.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters. They identify and seek help with simple problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for horticultural	1.1 Select materials, tools and equipment according to lists provided or supervisor's instructions 1.2 Conduct checks on all materials, tools and equipment and report

Element	Performance criteria
production work	faulty items 1.3 Demonstrate correct manual handling techniques when loading and unloading materials 1.4 Select and check suitable personal protective equipment (PPE) 1.5 Provide work support safely and as instructed 1.6 Identify and report workplace hazards
2. Undertake horticultural production work as directed	2.1 Follow instructions and directions provided by supervisor and seek clarification when necessary 2.2 Interact with other staff and customers in a positive and professional manner 2.3 Follow enterprise policy and procedures in relation to workplace practices, handling and disposal of materials 2.4 Report problems or difficulties in completing work to required standards or timelines
3. Clean up on completion of work	3.1 Return materials to store and dispose of waste materials 3.2 Clean, maintain and store tools and equipment 3.3 Report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT101A Support horticultural production.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT101 Support horticultural production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare materials, tools and equipment for work
- follow safety directions
- handle materials and equipment
- complete routine horticulture production assistance work, including the safe use and operation of farm tools and equipment
- clean up and dispose of waste consistent with environmental and enterprise requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for supporting production of horticultural crops
 - planting, picking, packing, loading and transporting techniques appropriate to this level
 - safe work practices
 - use of horticultural tools and equipment
 - work health and safety and environmental protection legislation and enterprise procedures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PHT201 Plant horticultural crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plant horticultural crops in the annual, vegetable and flower growing industries.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for crop planting operations	1.1 Follow instructions about planting the crop 1.2 Prepare machinery, equipment and tools for crop planting 1.3 Recognise workplace hazards and report safety concerns 1.4 Use and maintained personal protective equipment (PPE)

Element	Performance criteria
2. Prepare the site and plant material for planting	2.1 Prepare soil or growing media 2.2 Implement crop protection 2.3 Apply pre-planting treatments 2.4 Store planting material where required 2.5 Operate machinery, equipment and tools for soil preparation
3. Carry out planting operations	3.1 Select planting material 3.2 Store, handle and transport planting materials to the site 3.3 Carry out planting 3.4 Water plants in and apply post-planting treatments

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH201A Plant horticultural crops.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT201 Plant horticultural crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply agricultural chemicals under supervision
- apply enterprise quality standards
- estimate spacing and planting patterns
- follow safety procedures
- identify workplace hazards
- measure quantities of plant materials and treatments
- operate machinery to manufacturers specifications and low risk operating procedures
- select planting material
- use and maintain planting equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for planting horticultural crops
 - basic plant physiology
 - basic preparation of soil and growing media
 - environmental impacts and risks of planting horticultural crops
 - growing requirements of plants
 - importance of correct timing and procedures for crop planting
 - importance of field hygiene and quality control in regard to crop planting
 - nutritional, water and other requirements of the crop
 - principles of pest, weed and disease control
 - pre-planting soil and plant treatments and their importance

- soil structure and health

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH202 Carry out canopy maintenance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out maintenance and pruning on crop canopies.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for canopy maintenance activities	1.1 Confirm instructions for canopy maintenance 1.2 Prepare tools and equipment for use 1.3 Recognise workplace hazards and report safety concerns 1.4 Use and maintained personal protective equipment (PPE)

Element	Performance criteria
2. Carry out basic canopy maintenance	2.1 Identify and remove unwanted growth 2.2 Pull pruned material out of the canopy 2.3 Perform post-pruning treatments on the canopy 2.4 Shape, support or position canopy 2.5 Use control measures to regulate exposure of the crop to sun and to protect crop from damage 2.6 Operate and maintain equipment
3. Complete canopy maintenance activities	3.1 Clean, sharpen and store tools and equipment 3.2 Dispose of pruned material 3.3 Identify and report problems and anomalies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH202A Carry out canopy maintenance.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT202 Carry out canopy maintenance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- interpret instructions correctly
- communicate with team members and supervisor
- calculate hours and personal production rate
- participate in teams and contribute to team objectives
- use and maintain basic hand and power tools and equipment
- dispose of pruning waste in an environmentally aware and sensitive manner

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of canopy maintenance
- basic canopy maintenance techniques and their importance in relation to the desired quality of fruit the enterprise is aiming to produce
- the difference between fruiting and non-fruiting wood
- the effect of different climatic conditions on canopy maintenance requirements
- the importance of hygiene and quality control when performing basic canopy maintenance activities
- work health and safety responsibilities of employees when maintaining a canopy

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PHT203 Support horticultural crop harvesting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to pick crops and perform related tasks such as routine estimation of crop readiness for harvest, basic sorting, bunching and grading, and transportation of the crop from the field.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare equipment for harvesting	1.1 Carry out pre-operational and safety checks tools, equipment and machinery 1.2 Recognise workplace hazards and report safety concerns 1.3 Use and maintained personal protective equipment (PPE)

Element	Performance criteria
2. Harvest the crop	2.1 Ensure harvesting procedures minimise crop and plant damage 2.2 Carry out basic sorting and grading 2.3 Clean and maintain harvesting tools, equipment and machinery 2.4 Report harvesting problems
3. Transport the crop	3.1 Use safe manual handling when handling containers 3.2 Move and stack containers to minimise damage to the crop 3.3 Maintain temperature of the harvested crop 3.4 Transport the crop from the field to the processing or storage area 3.5 Maintain containers in good working order

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT203A Support horticultural crop harvesting.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT203 Support horticultural crop harvesting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- estimate the readiness of produce for picking
- harvest the crop using the correct technique
- select and grade produce at picking where required
- stack produce in containers without causing damage or losses
- transport produce from the field according to enterprise requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for harvesting horticultural crops
 - enterprise quality procedures
 - grading characteristics of each crop
 - recognition of crop maturity of a range of crops
 - the effect of adverse climatic conditions such as rain, hail, extreme wind with dust, or very high ultraviolet radiation, which may downgrade the quality of affected crop, prevent or impede harvest operations or severely influence the time taken to complete the harvest program
 - the importance of maintaining quality of produce, including cooling requirements and quick transport from field to processing areas

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPT204 Undertake field budding and grafting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to bud and graft trees, shrubs, vines and other plant types in nurseries or in-field situations.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare parent material for budding and grafting	1.1 Follow workplace hygiene practices to ensure tools and equipment are clean 1.2 Prepare plant material and use a suitable method of taking budding or grafting material 1.3 Select and use appropriate tools

Element	Performance criteria
2. Prepare budding and grafting materials	2.1 Select budding/grafting material for propagation 2.2 Use appropriate storage methods to maintain viability of materials 2.3 Dispose of discarded material 2.4 Prepare stock according to species guidelines 2.5 Handle budding/grafting materials and stock in a way that prevents damage
3. Bud/graft scion	3.1 Select budding/grafting method according to species guidelines 3.2 Seal bud/graft is sealed according to instructions 3.3 Affix labels and identification 3.4 Complete records accurately and timely 3.5 Identify, rectify or report out-of-specification process and equipment performance
4. Complete budding/grafting activities	4.1 Clean tools and equipment 4.2 Dispose of or store unused grafting material 4.3 Collect, treat, dispose of or recycle waste generated by both the grafting and cleaning procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH204A Undertake field budding and grafting.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT204 Undertake field budding and grafting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select and prepare stock for budding and grafting
- demonstrate a range of budding and grafting techniques
- maintain labels and records of the budding and grafting operation
- store unused grafting material
- treat plants after budding/grafting

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for field budding and grafting
 - cleaning requirements of work area and equipment
 - common problems and corrective action required
 - environmental issues and controls
 - importance of selection and use of rootstock
 - maintenance requirements of equipment
 - operation, components and purpose of budding/grafting and equipment
 - plant features and processes relevant to budding and grafting
 - procedures and responsibilities for reporting problem
 - recording requirements and procedures
 - root stocks and scion stock
 - stages of the budding/grafting procedure and their purpose

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PHT205 Carry out post-harvest operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out routine post-harvest operations on a horticultural enterprise.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for postharvest operations	1.1 Identify post-harvest treatments and operations to be performed and client specifications 1.2 Select materials, tools, equipment and machinery 1.3 Carry out pre-operational and safety checks on tools, equipment and machinery

Element	Performance criteria
	1.4 Comply with Hazard Analysis Critical Control Point (HACCP) and food safety requirements applicable to crop under cultivation 1.5 Follow site quarantine protocols and farm and personal hygiene requirements
2. Transport harvested produce	2.1 Transport produce from field to post-harvest processing or storage area with care 2.2 Maintain temperature of harvested produce at levels set by industry and enterprise work procedures 2.3 Maintain containers and other materials and equipment
3. Grade, label, treat, weigh and pack produce	3.1 Grade and label produce according to client specifications 3.2 Apply post-harvest treatments to produce 3.3 Identify quality parameters of produce and specifications for packaging materials, containers, filling techniques and labelling 3.4 Select packaging materials and containers for specific produce 3.5 Weigh filled containers, record weight and repack to correct weight 3.6 Use correct filling techniques for specific containers and produce 3.7 Apply wraps and lids and label containers according to client specifications
4. Store produce in a facility	4.1 Place containers onto pallets or racks to ensure stability and optimum airflow 4.2 Transport to and arrange pallets or racks in storage facility 4.3 Read storage facility monitoring gauges and report abnormal readings 4.4 Check condition of stored produce and remove damaged produce and containers from storage facility 4.5 Clean storage facility and packing containers

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH205A Carry out post-harvest operations.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT205 Carry out post-harvest operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify post-harvest treatments and operations to be performed
- label produce accurately and correctly
- maintain records of post-harvest operations to allow traceability
- minimise handling damage to produce
- transport, grade, treat, pack and store harvested produce according to market requirements and industry and enterprise standards
- use a range of equipment for handling and transporting produce

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of post-harvest operations
 - attributes of enterprise produce in relation to desired quality of produce to be presented to client
 - characteristics and procedures for the use of cool rooms
 - cool chain principles and practices
 - correct storage temperatures for a range of enterprise produce
 - disposal of waste materials to minimise damage to external environment
 - environmental effects of post-harvest treatments
 - humidity levels and its effect on quality of enterprise produce
 - hygiene issues in the handling and storage of plant produce
 - industry standards for packaging
 - produce handling and cooling requirements

- relationship between quality attributes of produce and packing techniques and packaging
- storage methods for different enterprise produce

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH206 Handle and move mushroom boxes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to handle and move mushroom boxes as part of the post-harvest process on a mushroom farm.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Distribute boxes for filling to picking rooms	1.1 Select, assemble and position materials, tools and equipment 1.2 Carry out pre-operational and safety checks on materials, tools and equipment 1.3 Distribute empty boxes to pickers in a timely and efficient manner 1.4 Follow site quarantine protocols and farm and personal hygiene

Element	Performance criteria
	requirements 1.5 Undertake work in an environmentally aware and safe manner
2. Collect and move filled boxes	2.1 Coordinate collection of filled boxes with delivery of empty boxes 2.2 Stack filled boxes on trolleys to the recommended height 2.3 Move stacked trolleys safely from picking rooms and with consideration for other traffic flow in the area 2.4 Stack filled boxes are stacked in cool room 2.5 Record cool room air and mushroom pulp temperatures 2.6 Report variations of temperature or any other anomalies and take remedial action as directed
3. Finalise tasks	3.1 Check, clean and return trolleys and other equipment to store area or position for work for next shift 3.2 Report faulty items for repair or replacement 3.3 Complete daily work records legibly and accurately 3.4 Report work outcomes and seek feedback on performance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT206A Handle and move mushroom boxes.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT206 Handle and move mushroom boxes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out an inventory of mushroom boxes
- collect filled boxes to ensure continued smooth flow of picking and packing work
- estimate quantities of boxes
- estimate rate of packing for collection
- record cool room air and mushroom pulp temperatures
- supply appropriate quantities of empty boxes to mushroom pickers in a number of picking rooms

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for handling and moving mushroom boxes
 - collection and packing procedures
 - quality requirements
 - safe manual handling techniques
 - storage requirements for mushrooms

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPT207 Perform mushroom substrate process tasks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare mushroom substrate either in a general mushroom farming enterprise or in a specialist substrate preparation enterprise. It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for each process stage	1.1 Confirm work requirements with supervisor 1.2 Check and prepare tools, machinery and equipment 1.3 Report and fix faults or variations from required settings 1.4 Follow site quarantine protocols and farm and personal hygiene requirements
2. Fill units with	2.1 Operate filling equipment at a speed that maintains continuous

Element	Performance criteria
mushroom substrate	operation 2.2 Fill units with mushroom substrate
3. Assist with spawning processes	3.1 Inspect and report any abnormalities found in spawn 3.2 Mix spawn into mushroom substrate 3.3 Check spawn usage rate and report any observed variation 3.4 Apply and mix supplement if required 3.5 Install spawned mushroom substrate in spawn run rooms 3.6 Take samples of mushroom substrate 3.7 Check mushroom substrate for presence of pests and take remedial action if required
4. Prepare and apply casing mixture	4.1 Assemble and check required quantities of pesticides, peat, limestone and additives for casing 4.2 Blend casing ingredients according to farm procedures 4.3 Take samples of prepared casing and mushroom substrate before casing has been added 4.4 Apply and mix supplement if required 4.5 Check casing depth, structure and consistency and report any variation
5. Finalise mushroom substrate processes	5.1 Clean, check and return equipment and tools 5.2 Clean up at the end of each process stage 5.3 Complete records legibly and accurately 5.4 Report work outcomes and seek feedback on performance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH207A Perform mushroom substrate process tasks.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT207 Perform mushroom substrate process tasks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- maintain site quarantine protocols and personal hygiene
- fill units with mushroom substrate
- apply spawn into mushroom substrate
- prepare and apply casing mixture
- accurately complete records

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of mushroom substrates
- farm standards and procedures, including those relating to workplace health and safety, food safety, HACCP, quality systems and emergency procedures
- the impact on the rest of mushroom production cycle of deviations of mushroom substrate quality from farm standards for substrate
- the mushroom production cycle
- substrate production
- site quarantine protocols

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH208 Water mushroom crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to water in mushroom crops.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to use watering equipment	1.1 Assemble and connect watering equipment components to water supply 1.2 Add chemicals to water 1.3 Read and record water meter for the area to be watered 1.4 Identify rooms and required watering pattern that require watering

Element	Performance criteria
2. Operate watering equipment	2.1 Follow site quarantine protocols and farm and personal hygiene requirements 2.2 Check and adjust water pressure to ensure correct spray or droplet pattern is achieved 2.3 Provide and distribute evenly water in the correct quantity and pressure 2.4 Report and fix faults or variations
3. Finalise watering operations	3.1 Read and water meter and record amount of water used 3.2 Disconnect watering equipment and return to storage area 3.3 Check watering equipment 3.4 Report work outcomes and seek feedback on performance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT208A Water mushroom crops.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT208 Water mushroom crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare to use watering equipment
- deliver water to the mushroom crop at required rate and pressure
- estimate flow rate of water by the range of watering equipment in use
- measure correct doses of additives for water
- record water use

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for watering mushroom crops
 - effect on mushrooms of under-watering, overwatering, insufficient evaporation, late watering and moisture imbalance
 - effects of water on casing structure, mycelium, yields and quality
 - factors affecting effective operation of watering tree or other equipment used
 - how panning occurs
 - 'light', 'medium' and 'heavy' water and when each type is used
 - safe and effective use of fungicides and other water additives

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PHT209 Produce trellis dried grapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate a trellis-dried grape system in a viticulture production environment. It applies to vineyard workers who perform summer pruning and crown bunch removal, emulsion application, harvest and post-harvest drying.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Summer prune a grape crop for trellis drying	1.1 Reduce leaf coverage on fruiting canes to assist cutting, emulsion application and drying 1.2 Cut canes in accordance with enterprise standards

Element	Performance criteria
	1.3 Leave replacement canes intact and undamaged to ensure next year's fruiting 1.4 Spray grapes requiring emulsion treatment to ensure full and complete coverage
2. Prepare for harvesting trellis dried grapes	2.1 Identify uncut grapes, cut crown bunches and hung them on trellis without causing damage for drying or removal 2.2 Sample crop and test for moisture content and readiness to harvest 2.3 Select and check harvest tools, equipment and machinery 2.4 Select, use, maintain and store suitable personal protective equipment (PPE)
3. Harvest trellis dried grapes	3.1 Operate harvesting machinery and ancillary equipment in a safe manner and at speeds to suit crop conditions 3.2 Maximise the quality of the crop by implementing and maintaining standards that meet processor and enterprise requirements 3.3 Remove, store and treat full bulk bins as soon as possible to minimise deterioration of crop quality 3.4 Clean harvest tools, equipment and machinery of pests and other contaminants to maintain crop quality 3.5 Recognise and control risks to self, others and the environment
4. Carry out postharvest drying	4.1 Select and check drying tools, equipment and machinery 4.2 Carry out post-harvest drying as directed to meet processor requirements 4.3 Monitor moisture and temperature of crop during drying and returned to bulk bins after appropriate cool down has occurred 4.4 Identify and report tool, equipment and machinery malfunctions, faults, irregular performance, damage and the need for corrective action

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT209 Produce trellis dried grapes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- summer prune vines according to enterprise requirements
- select, fit and use appropriate personal protective equipment (PPE)
- handle and use trellis drying tools, equipment and machinery safely
- identify parts of the vine
- carry out post-harvest drying

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for producing trellis dried grapes
 - crown and cordon bunch picking or removal requirements and procedures
 - environmental impact issues
 - hazard identification and control
 - processor quality standards and requirements
 - summer pruning requirements and procedures
 - year-round preparation required for trellis drying

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPHT301A Carry out a crop regulation program

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of co-ordinating a crop regulation program in which thinning and pruning of flower, fruit or vegetable crops is undertaken to control yield and quality and defines the standard required to: prepare for crop regulation activities; co-ordinate work groups; use a range of methods to achieve crop regulation goals; assess the effects on plant growth, habit and production levels of thinning and pruning operations; record or report activities; store and maintain equipment and materials.
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Application of the Unit

Application of the unit	This unit applies to working under limited supervision from others with checking only related to overall progress.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for the crop regulation program	<p>1.1.The site and operational requirements of the crop regulation program are identified according to the site plan and enterprise work procedures.</p> <p>1.2.Crop regulation materials are selected according to enterprise work procedures.</p> <p>1.3.Services are located using site plans and in consultation with the supervisor.</p> <p>1.4.Occupational Health and Safety (OHS) hazards are identified, risks assessed, controls implemented and reported to the supervisor.</p> <p>1.5.Suitable safety and Personal Protective Equipment (PPE) are selected, used and maintained.</p>
2. Prepare crop regulation equipment	<p>2.1.Tools, equipment and machinery are selected according to enterprise work procedures.</p> <p>2.2.Pre-operational and safety checks are carried out on tools, equipment and machinery according to manufacturers specifications and enterprise work procedures.</p> <p>2.3.Tools, equipment and machinery are calibrated and adjusted according to manufacturer's guidelines and enterprise work procedures.</p>
3. Implement the crop regulation program	<p>3.1.Enterprise work team and contractors are identified and work tasks are co-ordinated in a sequential, timely and effective manner in consultation with the supervisor.</p> <p>3.2.Work pattern is planned to cover the site in an efficient, sequential and co-ordinated manner</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>according to enterprise work procedures.</p> <p>3.3. Crop regulation tasks are undertaken according to OHS requirements and with due consideration of the environmental implications.</p> <p>3.4. Crop regulation tasks are monitored and remedial action is undertaken where necessary to achieve program objectives.</p> <p>3.5. A clean and safe work area is maintained throughout and on completion of work.</p>
4. Complete crop regulation activities	<p>4.1. Waste material is removed from the site and disposed of in an environmentally aware and safe manner according to enterprise work procedures.</p> <p>4.2. Tools, equipment and machinery are cleaned, maintained and stored according to enterprise work procedures.</p> <p>4.3. Work outcomes are recorded or reported to the supervisor according to enterprise work procedures.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communicate orally and in writing with work team members, supervisors and contractors
- utilise proforma recording, reporting and work procedure documents
- interpret site plans and crop regulation specifications
- measure quantities, calculate material requirements, area, volume, ratios and application rates, and calibrate machinery
- co-ordinate work group, contractors and own activities
- monitor enterprise plants for quality
- minimise noise, dust, high activity vehicle traffic and water run-off to prevent nuisance-level environmental disturbance
- use chemicals to label and MSDS directions
- carry out thinning and pruning techniques
- use interpersonal skills to work with and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

REQUIRED SKILLS AND KNOWLEDGE

Required knowledge

- principles of thinning and pruning and the methods used to achieve crop regulation goals
- effects on plant growth, habit and production levels of thinning and pruning operations in relation to the market goals of the enterprise
- enterprise quality procedures and characteristics of a crop relative to varying market requirements
- types of crop regulation materials
- safe work procedures for use of machinery and equipment
- environmental impacts of crop regulation and disposal of waste.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following:

- prepare for crop regulation activities
- co-ordinate work groups
- use a range of methods to achieve crop regulation goals
- assess the effects on plant growth, habit and production levels of thinning and pruning operations
- record or report activities
- store and maintain equipment and materials.

Context of and specific resources for assessment

Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole.	
Crop regulation methods may include:	<ul style="list-style-type: none"> • chemical and manual thinning • selective harvesting • training • summer and winter pruning • hedging, skirting, topping and trimming.

Unit Sector(s)

Unit sector	Production horticulture
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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AHC PHT303 Implement a post-harvest program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a post-harvest program for horticultural crops.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for implementation of post-harvest operations	1.1 Identify post-harvest operations to be performed 1.2 Select materials, tools, equipment and machinery 1.3 Carry out pre-operational and safety checks on tools, equipment and machinery

Element	Performance criteria
2. Coordinate post-harvest work	2.1 Identify enterprise work team and coordinate tasks 2.2 Undertake post-harvest operations 2.3 Maintain a clean, safe and hygienic work area
3. Implement post-harvest treatments	3.1 Grade and label harvested produce 3.2 Identify and dispose of produce that does not meet specifications and enterprise standards 3.3 Select post-harvest treatments according to harvested produce requirements 3.4 Ensure timing, rate, application method, environmental requirements and handling techniques conform to the requirements of the harvested produce 3.5 Ensure post-harvest practices are economical, methodical, meet established work schedules and minimise damage to produce 3.6 Clean and maintain tools, equipment and machinery
4. Implement hazardous waste disposal guidelines	4.1 Review waste disposal requirements and determine operational tasks 4.2 Monitor collection of waste and disposal 4.3 Report conditions likely to impact on business viability
5. Implement packing and presentation requirements of produce	5.1 Review specified packing and presentation requirements and determine operational tasks 5.2 Monitor and adjust packing and presentation processes 5.3 Record packing and presentation processes
6. Implement storage requirements of produce	6.1 Review specified storage requirements and determine operational tasks 6.2 Monitor storage processes and facilities 6.3 Record storage processes and conditions

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT303A Implement a post-harvest program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT303 Implement a post-harvest program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify post-harvest operations to be performed
- coordinate post harvest operations
- dispose of hazardous waste materials in line with guidelines and enterprise requirements
- implement post-harvest treatments and packing, presentation and storage requirements according to market specifications

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices postharvest treatments and processes
 - attributes of produce in relation to the desired quality of produce to be presented to the client
 - characteristics and procedures for the use of cool rooms
 - cool chain principles and practices
 - correct storage temperatures for a range of produce
 - enterprise confined spaces policy and safety procedures
 - environmental effects of post-harvest treatments and hazardous waste disposal methodologies, application and purpose
 - humidity levels and their effect on the quality of produce
 - hygiene issues in the handling and storage of plant produce
 - industry standards for packaging
 - integrated pest management principles and enterprise policy

- relationship between the quality attributes of produce and packing techniques and packaging
- storage methods for a range of produce
- the importance of maintaining the quality of produce including handling and cooling requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPHT304 Harvest horticultural crops mechanically

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate machinery and related equipment used in the harvest of horticultural crops.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare machinery for use	1.1 Select and use appropriate personnel protective equipment (PPE) 1.2 Conduct routine pre-operational checks and housekeeping tasks 1.3 Replace and report damaged or worn components 1.4 Identify and report potential workplace hazards

Element	Performance criteria
	1.5 Attach ancillary equipment and check for correct operation
2. Operate machinery and equipment	2.1 Operate machinery and equipment in a safe, efficient and controlled manner 2.2 Operate machinery according to task requirements, conditions and manufacturer operating guidelines 2.3 Monitor machinery performance and efficiency and make adjustments as required
3. Complete work	3.1 Follow shutdown procedures 3.2 Complete operational records 3.3 Carry out routine operator servicing 3.4 Identify and report malfunctions, faults, irregular performance or damage

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT304A Harvest horticultural crops mechanically.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT304 Harvest horticultural crops mechanically

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- attach and uncouple associated equipment
- conduct pre- and post-operational checks
- operate horticultural harvesting machinery and equipment in a safe, efficient and controlled manner
- perform operator maintenance tasks
- record work activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for operating crop harvesting machinery
 - basic diagnostic techniques
 - components and controls features and functions
 - crop quality assurance and hygiene requirements
 - equipment characteristics, technical capabilities and limitations
 - manufacturer and workplace requirements for pre-operational checks, machinery operation techniques, operator level servicing and shutdown and emergency procedures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH305 Regulate crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to regulate crops by thinning and pruning flower, fruit or vegetable crops to control yield and quality.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for crop regulation	1.1 Select crop regulation tools, equipment and machinery 1.2 Carry out pre-operational and safety checks on crop regulation tools, equipment and machinery 1.3 Select and prepare chemicals to be used for crop regulation 1.4 Select, use and maintain personal protective equipment (PPE)

Element	Performance criteria
2. Undertake crop regulation	2.1 Identify the plant material to be thinned or pruned 2.2 Undertake the crop regulation program 2.3 Operate crop regulation tools, equipment and machinery safely and effectively 2.4 Record and report signs of diseases and pests
3. Complete crop regulation	3.1 Dispose of waste material removed from the site 3.2 Follow correct manual handling techniques when lifting or moving heavy loads 3.3 Clean, maintain and store tools, equipment and machinery 3.4 Maintain a clean and safe work area 3.5 Record or report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH305A Regulate crops.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT305 Regulate crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out pre-operational and safety checks on crop regulation tools, equipment and machinery
- assess the effects on plant growth, habit and production levels of thinning and pruning operations
- interpret requirements for pruning or thinning and work to instructions
- use and maintain a range of plant thinning or pruning tools
- remove and dispose of waste material
- report signs of diseases and pests
- operate crop regulation tools, equipment and machinery

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of crop regulation
 - effect of weather which may prevent or impede crop regulation activities
 - effects on plant growth, habit and production levels of thinning and pruning operations in relation to the market goals of the enterprise
 - enterprise quality procedures and characteristics of a crop relative to varying market requirements
 - principles of thinning and pruning and the methods used to achieve crop regulation goals
 - safe work procedures for use of machinery and equipment
 - tools, equipment and machinery used for crop regulation
 - types of crop regulation materials

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH306 Establish horticultural crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish horticultural crops by seed, seedlings or other vegetative means.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare machinery and equipment for use	1.1 Select and prepare machinery and equipment and confirm against the work plan 1.2 Attach and calibrate equipment for operation 1.3 Identify workplace hazards, assess and control risks
2. Prepare for	2.1 Monitor soil and weather conditions for optimal seeding

Element	Performance criteria
horticultural crop establishment	conditions 2.2 Recognise and confirm soil conservation and sustainable land management practices and procedures 2.3 Confirm and prepare seeding/planting, fertiliser, and pest and weed control requirements
3. Sow/plant the crop	3.1 Undertake seeding/planting and fertiliser applications out 3.2 Coordinate pest and weed control treatment with seeding/planting and fertiliser applications
4. Complete seeding/planting operations	4.1 Maintain seeding/planting, machinery and equipment operation records 4.2 Report machinery and equipment damage, malfunctions or irregular performance 4.3 Clean, secure and store machinery and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH306A Establish horticultural crops.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT306 Establish horticultural crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out ground preparation and apply pre-planting treatments
- prepare and service machinery and equipment
- carry out sowing/planting operations and fertiliser application
- monitor the environmental impacts of establishing the crop
- clean, secure and store machinery and equipment
- keep records of the sowing/planting operation

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for establishing crops
 - crop types, preparation of seeds/plants, seeding/planting methods and application techniques
 - effects of weather conditions on seeding/planting and fertilising applications
 - enterprise policies for seeding/planting operations and recording and reporting routines
 - fertiliser types, rates of application and crop nutrient requirements
 - operating principles and operating methods for machinery and equipment
 - positive environmental practices, negative environmental impacts and minimisation measures associated with seeding operations
 - personal protective equipment (PPE) and when and how it should be used
 - pre-operational and safety checks, servicing and maintenance procedures for seeding/planting machinery and equipment
 - principles of weight distribution with regard to load shifting and vehicle movement

- procedures for cleaning, securing and storing machinery, equipment and materials
- relevant legislation, regulations and codes of practice with regard to workplace health and safety and the use and control of hazardous substances
- sustainable land management and soil conservation techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PHT307 Prepare raw materials and compost feedstock

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and mix raw materials into a suitable feedstock mixture for commercial-scale composting and compost feedstock mixtures to manufacture compost products.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Organise for processing	1.1 Review job sheet to identify all processing requirements 1.2 Check machinery, equipment and materials for serviceability and safe operation 1.3 Identify and assess workplace hazards and take action to

Element	Performance criteria
	minimise risk to self and others
2. Prepare raw materials and compost the feedstock mixture	2.1 Identify, collect and check raw materials and additives for physical contamination 2.2 Confirm composting technology and methods to be used as appropriate to raw material types and enterprise product requirements 2.3 Pre-process raw materials into suitable forms for composting 2.4 Mix pre-processed raw materials into suitable feedstock mixtures for composting 2.5 Handle feedstock mixtures for composting according to technology, appropriate method and industry best practice 2.6 Assign batch numbers or codes and create batch documentation to enable tracking of batch
3. Monitor composting process	3.1 Monitor composting batch by observing and using field testing equipment 3.2 Maintain processing and operations records for process control and to track batch through the compost production cycle 3.3 Report to supervisor faults or variations observed at any stage of the process and take remedial action to maintain effective and consistent compost production
4. Conduct quality control inspection	4.1 Inspect and assess finished compost for compliance with enterprise product requirements 4.2 Report faults or variations 4.3 Reprocess non-compliant product with necessary adjustments 4.4 Confirm compliance of compost batch with product requirements 4.5 Complete batch documentation for compliant compost product 4.6 Inform sales and operational staff members that product is suitable for sale and/or preparation of value-added products
5. Clean up area	5.1 Clean loading-shifting machinery and other processing equipment 5.2 Clear away raw materials and finished compost products to designated areas and clean processing site

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPHT307A Prepare raw materials and compost the feedstocks.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT307 Prepare raw materials and compost feedstock

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- conduct and interpret basic field test results to confirm effective processing and define intervention required to rectify composting processes
- establish and maintain appropriate compost batch documentation accurately and promptly
- prepare batches for composting according to defined compost recipes
- prepare raw materials for composting according to enterprise product requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for preparing composting raw materials
 - Australian composting standards
 - batch documentation techniques
 - characteristics of a range of raw materials
 - compost production cycle
 - compost quality standards
 - fundamental characteristics of compost quality
 - key process control stages critical to consistent compost production
 - overview of systems and technologies used in compost production
 - principles of commercial compost production
 - range and characteristics of categories of compost product
 - steps in pre-processing compost materials

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH308 Prepare value added compost-based products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare or blend compost with other materials or products to produce various value added compost-based products.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Organise for value-added product preparation	1.1 Review job sheet or work order to identify product requirements 1.2 Organise equipment required for product preparation 1.3 Identify workplace hazards and environmental implications and assess and manage risk

Element	Performance criteria
2. Prepare value-added products	2.1 Confirm compost and product additives against job sheet 2.2 Measure and transport compost and additives to preparation area 2.3 Monitor and check compost and additives against specifications and identify and report variations or non-conformances 2.4 Blend and process compost, materials and other additives 2.5 Clean machinery and site to avoid contamination between batches
3. Conduct quality inspection and readiness for sale	3.1 Inspect and check product for compliance with job sheet and product requirements 3.2 Document product details accurately and promptly 3.3 Transport product to holding bay and confirm quantity of product 3.4 Label product according to regulatory and customer requirements 3.5 Release product for dispatch

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT308A Prepare value added compost-based products.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT308 Prepare value added compost-based products

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify value-added product requirements
- interpret batch sheets and follow enterprise production procedures
- prepare batches of value-added product according to defined batch recipes and methods
- recognise value-added products and their characteristics
- recognise, quantify and handle products

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for preparing value added compost based products
 - Australian standards for products
 - common product contaminants
 - enterprise product specifications and standards
 - environmental license requirements, aspects and management measures associated with operation of machinery and equipment
 - hazards in handling materials and additives and appropriate risk control measures
 - identification of contaminants
 - legislation, regulations and codes of practice with regard to licensing, roads and traffic requirements
 - legislation, regulations and codes of practice with regard to workplace health and safety and use and control of hazardous substances
 - operating principles and methods for plant and machinery
 - potential risks and hazards associated with operation of machinery and equipment

- procedures for cleaning, securing and storing machinery, equipment and materials
- product types and characteristics
- raw materials, compost and additives commonly used to manufacture value-added products
- value-added product types and characteristics

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PHT309 Supervise mushroom substrate preparation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise the achievement of farm quality standards and processes associated with mushroom substrate preparation (Phase II), either in a general mushroom farming enterprise or in a specialist substrate preparation enterprise.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Confirm requirements for mushroom substrate preparation	1.1 Inform details of quantities of substrate and dates/times to be achieved for each stage of the process with personnel 1.2 Determine availability, quality, serviceability and cleanliness of resources required for mushroom substrate preparation 1.3 Follow site quarantine protocols and farm and personal hygiene requirements
2. Monitor mushroom substrate preparation process	2.1 Monitor mushroom substrate preparation processes 2.2 Take samples of materials and/or outputs 2.3 Monitor and position probes to ensure that they provide representative readings 2.4 Record production information required for Hazard Analysis Critical Control Point (HACCP) 2.5 Report faults or variations from required settings or farm quality standards 2.6 Monitor compost, rooms and work areas for the presence of pests and take remedial action
3. Finalise mushroom substrate preparation process	3.1 Monitor clean-up activities at end of each process stage 3.2 Clean and check equipment and hand tools 3.3 Carry out preventative maintenance according and report any faults 3.4 Complete records legibly and accurately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT309A Supervise mushroom substrate preparation.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT309 Supervise mushroom substrate preparation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- observe and report non-compliance with farm quality standards
- organise the process of mushroom substrate preparation
- coordinate work activities so that standards relating to productivity, workflow requirements, farm procedures and quality are met
- record and report production information

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for supervising mushroom substrate preparation
 - casing function, application, required depth and required surface structure
 - impact on mushroom production cycle of deviations of mushroom substrate quality from farm standards for substrate
 - overview of mushroom production cycle
 - overview of Phase I and Phase II substrate production
 - relevant legislation and industry codes of practice
 - site quarantine protocols
 - standards and procedures for workplace health and safety, food safety, HACCP, quality systems, emergency procedures, organisational structure and workplace communication channels and protocols

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH310 Coordinate horticultural crop harvesting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate crop harvesting activities.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for crop harvesting	1.1 Identify the crop to be harvested and the requirements and procedures to assure crop quality 1.2 Determine crop maturity by experience, specification charts, aids or devices and according to client, enterprise and industry quality assurance specifications

Element	Performance criteria
	1.3 Identify that suitable weather conditions for picking are established according to enterprise work procedures 1.4 Select tools, equipment and machinery according to harvest requirements 1.5 Carry out pre-operational and safety checks on tools, equipment and machinery
2. Coordinate harvesting activities	2.1 Inform seasonal labour of the harvest plan/strategy 2.2 Assign daily work tasks to harvest staff 2.3 Ensure work program allows for contingencies caused by weather or other interruptions 2.4 Monitor the harvest and coordinate changes to work activities as required
3. Monitor crop quality throughout harvest	3.1 Ensure harvesting procedures and the harvested crop comply with specifications 3.2 Ensure crop is handled in a way that minimises damage 3.3 Ensure sorting and grading of the crop complies with specifications 3.4 Minimise post-harvest deterioration in crop storage according to enterprise work procedures 3.5 Transport the crop with minimum damage 3.6 Calculate and record picking tallies or harvest yields
4. Deliver crop to specified destination	4.1 Confirm delivery details including quantity, timing and destination 4.2 Deliver crop with damage levels that are within specifications 4.3 Ensure crop complies with client, enterprise and industry quality assurance specifications 4.4 Complete delivery documentation accurately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH310A Coordinate horticultural crop harvesting.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT310 Coordinate horticultural crop harvesting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- coordinate a work group
- maintain harvest requirements
- monitor crop quality
- prepare for crop harvesting activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for
 - effect of adverse climatic conditions (e.g., rain, hail, extreme wind, or very high ultraviolet radiation), which may prevent or impede crop harvesting operations, or severely influence the time taken to complete the tasks necessary to fulfil the operation
 - enterprise quality procedures and characteristics of a crop relative to varying market requirements
 - grading characteristics of each crop
 - importance of maintaining quality of produce including cooling requirements and quick transport from field to processing areas
 - industry wage rates and conditions, contractors services, conditions and rates
 - licensing requirements for use of forklifts, trucks and machinery
 - recognition of the maturity parameters of a range of crops

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH401 Assess olive oil for style and quality

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assess olive oil for style and quality.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish and implement appropriate tasting protocols	1.1 Establish appropriate tasting conditions 1.2 Apply accepted industry tasting procedures 1.3 Taste oils in the order that will best show the character of each oil

Element	Performance criteria
2. Determine style and sensory quality of the olive oil	2.1 Identify and assess characteristics of the olive oil 2.2 Taste oil to assess 2.3 Smell and taste oil to assess sensory quality 2.4 Analyse and record observed defects for future action
3. Determine the analytical quality of the olive oil	3.1 Send oil samples to laboratory to test key chemical indices 3.2 Interpret key chemical indices to assess analytical quality of oil 3.3 Record for future action observed chemical indices that are beyond the normal range
4. Identify factors influencing the style and quality of the olive oil	4.1 Identify horticultural factors that may influence style and quality of the olive oil 4.2 Identify processing factors that may influence style and quality of the olive oil 4.3 Identify other factors that may influence style and quality of the olive oil
5. Implement findings of tastings and chemical analyses	5.1 Maintain records of season's tastings and chemical analyses 5.2 Evaluate horticultural and processing activities and methods in terms of modifications and improvements to be made 5.3 Adjust and document horticultural production plan for next season 5.4 Document and communicate processing requirements for next season to processing personnel

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT401A Assess olive oil for style and quality.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT401 Assess olive oil for style and quality

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify olive oil styles
- identify common olive oil defects
- modify horticultural and/or processing practices to remedy variations from desired style and quality

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for assessing olive oil
 - cause of olive oil defects and how they can be remedied
 - horticultural and processing practices that affect olive oil style, and reasons for the effect
 - relationship between critical chemical parameters and oil style and quality

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPHT402 Develop a crop regulation program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a crop regulation program.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess crop regulation methods	1.1 Identify production targets and requirements in terms of quantity, quality and availability of specified crops 1.2 Research the characteristics and growing requirements of plant

Element	Performance criteria
	species and cultivars that may affect the crop regulation program 1.3 Assess the benefits and limitations of available crop regulation methods for specified crops 1.4 Evaluate implementation risk of available methods and record and cost risk controls 1.5 Determined the most cost-effective approach to crop regulation and submit to management for approval
2. Identify the requirements of a crop regulation program	2.1 Develop the crop regulation program to achieve the appropriate yield and quality 2.2 Identify and confirm availability of resources, tools, equipment and machinery for the program 2.3 Outline staged implementation and development according to the range of conditions over the growing cycle 2.4 Determine timelines for crop regulation activities, taking into account the needs of the crop and site conditions
3. Prepare and document the crop regulation program and specifications	3.1 Prepare a plan, specifications and quotation based on the requirements of the program 3.2 Develop and document on-site procedures and schedules for the program
4. Monitor the crop regulation program	4.1 Monitor implementation of the program to ensure requirements of the production plan are achieved 4.2 Monitor and review the program to ensure it remains responsive to changing conditions 4.3 Implement appropriate courses of action to alleviate or overcome identified shortcomings 4.4 Document and report remedial action undertaken to management

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT402A Develop a crop regulation program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT402 Develop a crop regulation program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess and select cost-effective techniques, resources and equipment for the regulation of horticultural crops
- develop a crop regulation program to achieve the yield and quality specified in the enterprise production plan
- document a crop regulation plan, specifications and quotation
- document detailed schedules and work procedures
- prepare a cost-benefit analysis on available crop regulation methods
- review the crop regulation program
- implement appropriate courses of action in response to identified shortcomings

Knowledge Evidence

The candidate must demonstrate knowledge of:

- crop regulation published data on the species and cultivars
- principles and practices for developing a crop regulation program
- processes and techniques for preparing, costing and documenting plans for scheduling crop regulation activities
- site evaluation techniques, including analysis of the condition of soils, plants and the site for production activities
- specific crop physiology and timing of regulation
- the characteristics of soil and other growth media types and the use of additives to enhance the available nutrition for specific plant species and cultivars
- the relationship between enterprise crop regulation methods, such as thinning, pruning and RDI, and the yield and quality of specific crops

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPHT403 Develop harvesting and processing specifications to produce an olive oil

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop specifications that will produce the required quantity, style and quality of oil from an olive crop.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Specify the style and other characteristics	1.1 Specify desired properties of the olive oil using standard industry terminology

Element	Performance criteria
desired of the olive oil	
2. Establish the appropriate time and conditions for harvesting	2.1 Estimate maturity of fruit using informal and formal methods 2.2 Schedule harvest so that fruit picked will produce desired quality, style and amount of olive oil 2.3 Evaluate range of harvest methods available and select the ones most likely to contribute to production of desired olive oil 2.4 Obtain and brief harvesting personnel about harvest requirements and procedures
3. Specify post-harvest handling and processing method	3.1 Specify post-harvest handling and treatment for olive crop using standard industry terminology 3.2 Specify processing using standard industry terminology 3.3 Specify packaging, storage and transport requirements for processed olive oil using standard industry terminology
4. Select an olive oil processor	4.1 Obtain details of suitable available processors 4.2 Review and apply criteria for selecting a processor 4.3 Select most suitable processor using predetermined criteria 4.4 Agree with specifications and related processing requirements with selected processor and incorporate into a contract 4.5 Document the specifications and related processing requirements in a report

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPHT403A Develop harvesting and processing specifications to produce an olive oil.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT403 Develop harvesting and processing specifications to produce an olive oil

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- arrange for an appropriate method of processing to produce the desired style and quality of oil
- document the specifications and related processing requirements in a report
- estimate and schedule fruit maturity
- incorporate specifications into a contract
- select an appropriate style of oil that can be produced from a crop and describe it using standard industry terminology

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for developing specifications for olive oil
 - how an olive oil is produced from olives
 - influence of processing on chemical composition of oil (polyphenols, aroma and flavour compounds)
 - influence of various harvesting methods on olive oil style and quality (bitterness, pungency, aroma and flavour)
 - market preferences for styles of olive oil
 - methods of olive oil extraction and advantages/disadvantages associated with each
 - post-harvest handling (including storage and transport) requirements for olive fruit intended for olive oil processing
 - post-processing storage and handling requirements of olive oil

- relevant legislation and regulations covering food safety, trade practices and contract law

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPHT404 Implement and monitor a horticultural crop harvesting program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement and monitor of a horticultural crop harvesting program.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture [PHT]

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan for harvesting	1.1 Assess and record crop maturity and quality 1.2 Estimate best time to harvest crop

Element	Performance criteria
	1.3 Undertake pre-harvest treatments for control and eradication of pests 1.4 Determine harvesting resource requirements and estimate when to harvest
2. Coordinate the harvest strategy	2.1 Implement harvesting operations according to customer requirements, weather, equipment and staff availability 2.2 Coordinate and monitor equipment operation for maximum efficiency and effectiveness 2.3 Identify and control hazards
3. Complete harvest operation	3.1 Locate storage resources 3.2 Determine strategies for drying crops if necessary 3.3 Monitor work to ensure that crop is graded, packed and stored according to enterprise requirements 3.4 Evaluate harvesting operations and outcomes against harvest strategy 3.5 Provide feedback on performance to personnel under supervision 3.6 Document crop quality, pre-harvest treatments and outcomes of harvest for continual analysis and effective planning management

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPHT404A Implement and monitor a horticultural crop harvesting program.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT404 Implement and monitor a horticultural crop harvesting program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- coordinate equipment
- document a crop harvesting report
- establish strategies for pre-harvest and harvest
- estimate crop quality and yield
- evaluate harvest operations and outcomes
- implement treatments for control and eradication of pests
- implementing safe workplace and positive environmental practices
- organise resources for the harvest

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for crop harvesting
 - crop measurement techniques and parameters
 - customer requirements
 - environmental controls and codes of practice applicable to harvesting operations
 - functions and limitations of harvesting equipment
 - location and relative skills and abilities of available staff, contractors or casual staff
 - market information and sources
 - relevant legislation and regulations relating to workplace health and safety, contractor engagement, chemical use and application, and vehicle and plant use
 - required productivity rates
 - weather or other conditions that may affect harvest

- where relevant to enterprise's production: food safety and Hazard Analysis Critical Control Point (HACCP) requirements, and requirements for export markets

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH405 Manage mushroom substrate preparation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage mushroom substrate preparation.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Confirm status of system requirements for mushroom	1.1 Determine details of quantities of substrate required and dates/times to be achieved for each process stage and communicate to personnel

Element	Performance criteria
substrate preparation	1.2 Determine availability, quality, serviceability, and cleanliness of all rooms, work areas, machinery, equipment and materials for mushroom substrate preparation 1.3 Allocate staff duties and responsibilities 1.4 Follow site quarantine protocols and farm and personal hygiene requirements
2. Confirm quality and consistency of Phase II outputs	2.1 Ensure Phase II process conforms to required production schedule and farm procedures 2.2 Record key factors and critical points 2.3 Take random samples of end product and dispatch for analysis 2.4 Record test results, compare to standards and take remedial action
3. Monitor and manipulate spawning and spawn run	3.1 Assess condition and quality of compost before spawning and take remedial action 3.2 Take temperature readings and record and adjust if required 3.3 Measure, record and control carbon dioxide content 3.4 Monitor spawn growth and appearance of mycelium during spawn run period 3.5 Select product and its rate of application where supplement is to be added to substrate at spawning 3.6 Monitor room hygiene and occurrence of pests and diseases and implement control measures
4. Manage clean-up procedure	4.1 Manage clean-up activities at the end of each process stage 4.2 Conduct cook-out or chemical disinfestations treatment before removal of spent substrate 4.3 Return equipment and hand tools to storage area after cleaning, basic preventative maintenance and checking for future serviceability 4.4 Report faults to maintenance personnel 4.5 Complete workplace records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPHT405A Manage mushroom substrate preparation.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT405 Manage mushroom substrate preparation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- establish and review farm procedures for mushroom substrate preparation
- monitor and manipulate all interactions between inputs, conditions and outputs for each stage of substrate process
- set and monitor productivity standards for mushroom substrate and rest of production cycle
- record and analyse production data

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for managing mushroom casing production
 - casing function, application, required depth and required surface structure
 - detailed knowledge of all stages in Phase II substrate preparation process
 - farm standards and procedures, including those relating to OHS, food safety, Hazard Analysis Critical Control Point (HACCP), quality systems, emergency procedures, organisational structure and workplace communication channels and protocols
 - how mushrooms are grown, with a focus on interaction between compost, environmental factors (such as temperature, water, relative humidity, carbon dioxide and ammonia) and mushroom growth
 - industry and workplace awards and conditions
 - key parameters to be recorded and monitored and appropriate ranges in relation to temperature, ammonia, relative humidity, moisture content, carbon dioxide and time
 - overview of mushroom production cycle and possible impact of deviations from farm standards on substrate and rest of production cycle

- overview of Phase I compost production
- relevant legislation and industry codes of practice and quality

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH406 Control Phase II mushroom substrate process

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to control Phase II of mushroom substrate.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Confirm the requirements for Phase II mushroom substrate	1.1 Monitor and manage Phase II mushroom substrate process and ensure that all equipment is operated safely 1.2 Check to ensure all temperature probes are functioning correctly

Element	Performance criteria
preparation	1.3 Ensure site quarantine protocols and farm and personal hygiene requirements are followed 1.4 Assess condition and quality of compost before filling
2. Carry out Phase II process	2.1 Monitor placement of probes in air and substrate 2.2 Check the evenness of filling and the amount filled 2.3 Ensure doors are secure and vents and thermostats are set at completion of filling 2.4 Measure and record key factors and critical points 2.5 Adjust equipment settings to ensure optimum conditions for each Phase II sub-stage 2.6 Take random representative samples for laboratory testing 2.7 Determine ammonia levels before cool down for spawning

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT406A Control Phase II mushroom substrate process.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT406 Control Phase II mushroom substrate process

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess room or tunnel layout and determine most appropriate locations for taking substrate and air measurements
- carry out effective troubleshooting during Phase II process
- differentiate between Phase I substrate and substrate ready for spawning and describe desired parameters of each stage
- monitor and manage Phase II process for at least eight crops

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for controlling Phase II processes
 - concept of compost selectivity and biological indicators of compost quality
 - correct probe placement and calibration
 - factors influencing air quantity and distribution
 - farm standards and procedures, including those relating to workplace health and safety, food safety, Hazard Analysis Critical Control Point (HACCP), quality systems, emergency procedures, organisational structure
 - interpretation of chemical test results
 - how different systems (shelf, tray and tunnel) impact on temperature zones in substrate
 - key parameters to be recorded and monitored relating to temperature, ammonia and moisture content
 - objectives and desired parameters of each sub-stage of Phase II substrate preparation
 - overview of Phase I compost production and how it impacts on Phase II process

- relevant legislation and industry codes of practice
- site quarantine protocols

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH407 Manage mushroom crop development

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage mushroom crop development, including the selection, application and management of the mushroom casing and all activities up to the end of the harvesting period.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Manage casing application	1.1 Select casing materials and recipe 1.2 Assess condition and quality of spawn run before casing

Element	Performance criteria
	<p>1.3 Where supplement is to be added to substrate at casing, product and its rate of application are selected and instructions are given to appropriate personnel</p> <p>1.4 Check casing mixture is checked against farm standards for moisture, structure and depth, and remedial action is taken if required</p>
<p>2. Control environment during casing colonisation growth phase</p>	<p>2.1 Crop is installed in growing room according to farm procedures</p> <p>2.2 Air conditioning system in the growing room is set up and checked for correct functioning</p> <p>2.3 Temperature, relative humidity and carbon dioxide content are measured, recorded, and where required, adjusted</p> <p>2.4 Mycelium growth is assessed and decisions are made on the timing and quantity of water to be applied</p> <p>2.5 Pest and disease status is monitored and recorded and, where required, remedial action is taken</p>
<p>3. Initiate fruit body formation and manage pinning and pre-picking growth phases</p>	<p>3.1 Assess growth and make changes to temperature and ventilation to initiate fruit body formation according to farm procedures</p> <p>3.2 Record and adjust temperature, relative humidity and carbon dioxide content</p> <p>3.3 Identify and analyse variations from expected or required ranges of temperature, relative humidity and carbon dioxide content and take appropriate remedial action</p> <p>3.4 Assess mycelium development and pin development and determine timing and quantity of water and additives to be applied to water</p> <p>3.5 Monitor and record pest and disease status and take remedial action where required</p>
<p>4. Assess crop maturity, flush development and quality, and monitor the harvesting process</p>	<p>4.1 Assess crop maturity to determine when and what to pick</p> <p>4.2 Instruct pickers about tasks to be performed</p> <p>4.3 Monitor picking results to ensure instructions continue to be appropriate and are being carried out</p> <p>4.4 Consult markets to ensure product meets market needs and specifications</p> <p>4.5 Monitor crop quality, recognise disorders stimulated by environmental conditions and implement remedial action if required</p> <p>4.6 Monitor and record pest and disease status during this stage and take remedial action where required</p> <p>4.7 Plan daily work schedule for waterers and coordinate picking and watering schedules</p> <p>4.8 Review harvest process for compliance with quality standards and</p>

Element	Performance criteria
	identify, document and implement areas for improvement where appropriate 4.9 Provide feedback to pickers on individual and team performance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH407A Manage mushroom crop development.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT407 Manage mushroom crop development

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop work schedules
- maintain environment within parameters for production
- monitor and manage growing room conditions, watering and flush development of mushroom crops
- identify stages of growth and development, and factors impacting on yields and mushroom quality
- identify the interdependency of stages of growth and impact of early stages of production cycle on production results

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of mushroom crop development
 - available options of additives to irrigation water to promote mushroom quality and the main considerations of their use
 - basic understanding of air conditioning principles, particularly relative humidity
 - casing function, application and depth and surface structure requirements
 - desirable physical, biological and chemical characteristics of casing
 - farm standards and procedures, including those relating to OHS, food safety, Hazard Analysis Critical Control Point (HACCP), quality systems, emergency procedures, organisational structure and workplace communication channels and protocols
 - goals and sub-stages of Phase II substrate preparation and impact of Phase II on yields and quality

- growth phases of a mushroom crop and interactions that occur between the compost, casing, environmental factors (such as temperature, water, relative humidity and carbon dioxide) and growth of the mushroom
- how nature of casing and the appearance and quantity of mycelium growth in casing affect the number, distribution and quality of fruit bodies formed
- impact of mushroom numbers and size on picking and quality
- industry and workplace awards and conditions
- management impacts of supplementing at spawning or casing
- management requirements of casing - Compost Added at Casing (CAC) and/or Casing Inoculums (CI)
- OHS and environmental legislation, industry codes of practice and enterprise procedures
- overview of Phase I substrate production and its impact on yields and quality
- site quarantine protocols

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPTH408 Overseer vineyard practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and implement a program of vineyard practices and to monitor and review the growing program.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Define the requirements of the vineyard	1.1 Identify the range of grape varieties and cultivars, and growing systems 1.2 Determine materials, equipment and labour required for

Element	Performance criteria
	maintaining the vineyard 1.3 Determine consumables required for maintaining the vineyard 1.4 Check staff skills and knowledge
2. Develop a program of vineyard practices	2.1 Determine vineyard practices from planting out to harvest and for the annual growing season 2.2 Allocate resources 2.3 Make allowance in the program for unforeseen circumstances, damage caused by weather and new developments
3. Implement the program	3.1 Maintain daily workplace records and other information relevant to the vineyard program 3.2 Allocate and supervise staff 3.3 Ensure materials and equipment are used according to safe operating procedures
4. Monitor and review the program	4.1 Check the vineyard program against previous programs and make adjustments as necessary 4.2 Review production plans to determine and align schedule of activities 4.3 Review vineyard practices to identify opportunities for improvements in performance 4.4 Compare costs and estimates of the vineyard program with resource allocation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT408A Oversee vineyard practices.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT408 Oversee vineyard practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine and organise work schedules
- determine maintenance requirements for the vineyard
- oversee the implementation of vineyard practices
- plan and program vineyard practices
- recognise wine grape varieties and cultivars

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for overseeing vineyard practices
 - irrigation systems
 - plant nutrition practices
 - safe operating practices
 - supervision and team building
 - trellis and harvesting systems
 - vineyard practices and growing systems for grape varieties and cultivars
 - weed, pest and disease control practices
 - wine grape varieties and cultivars

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPHT502 Develop a horticultural production plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a production plan for a horticultural enterprise.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Carry out planning activities	1.1 Ensure client preferences and requirements are understood and confirmed according to enterprise marketing and business plans 1.2 Assess the production site for growing factors, services and site

Element	Performance criteria
	<p>modifications</p> <p>1.3 Research the growing requirements of plant species and cultivars and restrictions that may affect the production plan</p> <p>1.4 Identify sustainable land use issues that may affect planned production</p> <p>1.5 Set production targets that are consistent with the marketing strategy and business plan</p> <p>1.6 Determine production requirements in terms of quantity, quality and availability of the product</p> <p>1.7 Develop a plan that reflects client preferences and requirements</p>
2. Determine the requirements of horticultural production	<p>2.1 Identify plant species that are consistent with the plan and the calculate, cost and confirm availability with the supplier</p> <p>2.2 Select plant establishment procedures consistent with the agreed plan</p> <p>2.3 Ensure design of the site includes irrigation and drainage systems, and takes into account the growing requirements of plants and sustainable land use practices</p> <p>2.4 Provide cultural management of the growing environment from planting to harvest</p> <p>2.5 Determine harvesting dates to meet market deadlines</p> <p>2.6 Identify resources required for the establishment of the site</p>
3. Schedule production activities	<p>3.1 Outline staged implementation and development with future works access provided for</p> <p>3.2 Determine timelines, taking into account any other planning requirements</p> <p>3.3 Plan marketing and schedule according to the production schedule and marketing strategy</p>
4. Plan monitoring of the production plan	<p>4.1 Determine production activities to be monitored, the format for recording factors, frequency of monitoring and the thresholds for remedial action</p> <p>4.2 Document required remedial for implementation by staff</p> <p>4.3 Review on a regular basis the effectiveness of the monitoring system</p> <p>4.4 Compare the production program with feedback and projections from clients</p>
5. Prepare and document the production plan and specification	<p>5.1 Prepare detailed plan, specifications and quotation based on horticultural conventions and the requirements of production</p> <p>5.2 Develop and document detailed on-site procedures and schedules required for production</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH502A Develop a horticultural production plan.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT502 Develop a horticultural production plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a horticultural production plan that reflects client preferences and requirements
- design and incorporate infrastructure into planning
- document and cost the production plan
- establish product specifications
- research site factors and land use issues
- select and source plants or plant material for seeding or propagation
- develop a monitoring program to cover the horticultural operation from sowing to sale

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for developing a horticultural production plan
 - advantages and limitations of sustainable horticulture systems
 - establishment and maintenance of a range of enterprise horticultural products in relation to client needs and the standards required by the marketplace
 - establishment procedures, plant selection and cultural practices for a range of enterprise horticultural products
 - processes and techniques for preparing, costing and documenting plans for and scheduling horticultural production
 - role of business and marketing plans and client consultation processes in planning horticultural production

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPT503 Manage a controlled growing environment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage controlled growing environments.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify crop requirements	1.1 Determine crop growth and production requirements according to a documented production plan 1.2 Research environmental parameters for optimal growing

Element	Performance criteria
	<p>conditions for the specific crop, using available information resources</p> <p>1.3 Identify and record controlled growing environment factors</p>
<p>2. Determine requirements for controlled growing environment</p>	<p>2.1 Identify, cost and confirm availability of structures, machinery, equipment and resources required to control environmental conditions</p> <p>2.2 Identify detrimental environmental impacts associated with the controlled growing environment system</p>
<p>3. Prepare a management plan for controlled growing environment</p>	<p>3.1 Determine management objectives for controlled growing environment consistent with production plan and market requirements for crop quantity and quality</p> <p>3.2 Develop a schedule of environmental control procedures according to controlled environment management objectives</p> <p>3.3 Evaluate and report staff training needs with regard to operation and maintenance of environmental control systems</p> <p>3.4 Document a budget supporting the controlled environment management plan and seek approval</p> <p>3.5 Communicate the schedule of environmental control procedures clearly to staff</p>
<p>4. Manage controlled growing environment</p>	<p>4.1 Identify controlled environment indicators and thresholds for remedial action for monitoring</p> <p>4.2 Develop monitoring frequency and schedule according to the requirements of the production plan and communicate to staff</p> <p>4.3 Record, analyse and apply all monitoring data to ensure optimal plant development</p> <p>4.4 Document and report remedial action undertaken</p> <p>4.5 Monitor costs of the controlled growing environment system against budget</p> <p>4.6 Record and report budget adjustments</p> <p>4.7 Evaluate recorded information, budget data and production outputs and document operational achievements towards management objectives in a report</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH503A Manage a controlled growing environment.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT503 Manage a controlled growing environment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a management plan to cover staff training, budgets, operating procedures and remedial actions
- develop environmental monitoring procedures
- evaluate and document the achievements towards management objectives
- identify the growing requirements of the crop
- prepare specifications for controlled growing infrastructure

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for managing controlled growing environments
 - controlled environmental conditions in regard to crop plant physiology, growth stages, and product quality and quantity
 - legislation and regulations relating to the controlled environment systems
 - market requirements for crop quantity and quality
 - monitoring, analysis and recording systems
 - plant physiology and biochemistry
 - quality production methods and techniques for a range of controlled environment plants
 - staff training requirements
 - techniques and methods of implementing optimal growing conditions for a range of horticultural crops

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PHT504 Develop a grape production plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a production plan for a grape growing enterprise using knowledge of issues and trends affecting the industry, grape market requirements and vineyard site factors, suitable plant species and cultivars, resources and equipment for establishing a vineyard.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Carry out preliminary	1.1 Identify and evaluate trends and issues affecting the Australian

Element	Performance criteria
planning activities	<p>viticulture industry for their impact on planning decisions</p> <p>1.2 Determine client preferences and requirements for the production of grapes</p> <p>1.3 Assess the vineyard site for growing environment factors, services and site modifications</p> <p>1.4 Conduct research into the characteristics and growing requirements of grape varieties and cultivars, legal attributes of the site, and local by-laws and restrictions that may affect the production plan</p> <p>1.5 Identify sustainable land use issues that may affect planned production</p> <p>1.6 Set production targets that are consistent with the marketing strategy and business plan</p> <p>1.7 Determine production requirements in terms of quantity and quality of grapes</p> <p>1.8 Develop a draft plan that reflects client preferences and requirements and takes into account site factors and any identified sustainable land use requirements</p>
2. Determine the production requirements for grapes	<p>2.1 Identify grape varieties that are appropriate to the site and consistent with the plan</p> <p>2.2 Calculate, cost and confirm the quantity required with the supplier</p> <p>2.3 Select establishment procedures consistent with the agreed preliminary plan</p> <p>2.4 Document cultural management practices to achieve optimal growth</p> <p>2.5 Determine harvesting dates to meet market specifications and deadlines</p> <p>2.6 Identify and cost resources, tools, equipment and machinery required for production</p> <p>2.7 Identify hazards associated with production activities, assess risks and identify and document controls in the plan</p> <p>2.8 Identify policy concerning grapes not meeting specifications according to customer requirements, quality assurance policies and marketing strategy</p>
3. Schedule grape production activities	<p>3.1 Outline staged implementation and development of the grape production activities</p> <p>3.2 Determine and document timelines for grape production activities</p> <p>3.3 Plan and schedule marketing according to the production schedule and marketing strategy</p>
4. Plan monitoring of the grape production plan	<p>4.1 Determine production activities to be monitored, the format for recording factors, frequency of monitoring and the thresholds for</p>

Element	Performance criteria
	remedial action 4.2 Document required remedial action for implementation by staff 4.3 Review on a regular basis the effectiveness of the monitoring system 4.4 Compare the production program with feedback and projections from clients
5. Prepare and document the grape production plan and specifications	5.1 Prepare detailed plans, specifications and quotations based on industry conventions and the requirements of production 5.2 Produce a scaled vineyard site plan which can be readily interpreted and understood by on-site personnel 5.3 Develop and document detailed on-site procedures and schedules required for grape production

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT504A Develop a grape production plan.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT504 Develop a grape production plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research, evaluate and record relevant information calculate the cost and logistical requirements of the production plan
- Plan and schedule grape production activities
- Plan and schedule marketing
- communicate and negotiate with the client, staff, managers, suppliers, contractors and consultants
- document plans, specifications and production work procedures
- prepare reports for staff, managers, clients and contractors
- produce a site plan which can be readily understood by on-site personnel

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for developing a grape production plan
 - establishment and management of grape production in relation to client needs and the standards required by the marketplace
 - establishment procedures, plant selection and cultural practices for grape production
 - processes and techniques for preparing, costing and documenting plans for and scheduling grape production
 - the role of business and marketing plans and client consultation processes in planning grape production
 - trends and issues of the Australian viticulture industry

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPT505 Evaluate wine

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to evaluate a variety of wine types and style and make recommendations for the improvement of wine making and viticultural practices to enhance the quality of wine produced.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Analyse chemical components of wine	1.1 Determine chemical components for a particular wine style and identify testing laboratories

Element	Performance criteria
	<p>1.2 Take samples of grapes, juice or wine according to standard sampling procedures and laboratory requirements</p> <p>1.3 Perform simple wine analysis procedures and record results</p> <p>1.4 Evaluate and compare results of chemical analyses with desired values to identify potential chemical problems in the winemaking process and any required additions or fining agents</p>
2. Resolve wine making problems	<p>2.1 Evaluate wine or juice using standard laboratory and organoleptic procedures</p> <p>2.2 Identify the protein stability of a wine using a buttes or heat technique</p> <p>2.3 Identify the need for cold stabilisation of a wine</p> <p>2.4 Use additives and/or fining agents to alleviate problems or improve quality</p> <p>2.5 Evaluate the effectiveness of additives and/or fining agents used to alleviate problems or improve quality and adjust their use where indicated</p> <p>2.6 Carry out wine-making and handling processes in a hygienic working environment</p> <p>2.7 Describe, record and use cellar operations procedures and instructions during the winemaking process</p>
3. Taste and evaluate a wine	<p>3.1 Use accepted tasting procedures for tasting the wine</p> <p>3.2 Identify the flavour and aroma components and characteristics of the wine using organoleptic evaluation techniques</p> <p>3.3 Identify the relative contribution and interaction of wine components to the wine taste, aroma and appearance, using accepted wine description terminology</p>
4. Analyse the effect of winemaking techniques on wine	<p>4.1 Identify evidence of the winemaking technique in the wine to distinguish it from other influences on the wine</p> <p>4.2 Identify faults in the wine attributable to the winemaking technique and distinguish from bottle age characteristics</p> <p>4.3 Determine the effect of winemaking techniques on suitability of wine for cellaring</p>
5. Analyse the effect of site characteristics, viticultural practices and grape varieties on wine quality	<p>5.1 Identify effects of climate in the wine</p> <p>5.2 Identify effects of the physical characteristics of vineyard sites in the wine</p> <p>5.3 Identify and analyse effects of grape variety</p> <p>5.4 Identify and evaluate effects of viticultural practices in the wine in terms of modifications and improvements to be made for the next season</p> <p>5.5 Adjust, document and communicate viticultural production plan</p>

Element	Performance criteria
	for next season to vineyard personnel
6. Analyse current packaging methods, bottle closure methods and wine labelling laws	6.1 Identify the range of wine packaging available and used in the Australian wine industry 6.2 Identify and compare the range of wine bottle closure methods used in the Australian wine industry 6.3 Identify and interpret current wine labelling regulations and their impact on the wine industry

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPT505A Evaluate wine.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT505 Evaluate wine

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- perform chemical analyses necessary for the winemaking process
- evaluate a wine, following tasting
- determine the effect of winemaking techniques on wine
- determine wine characteristics and faults using organoleptic evaluation techniques
- identify and recommend improvements to viticultural practices that will contribute to enhanced wine quality in the next season
- analyse current packaging methods, bottle closure methods and wine labelling lawsresearch, evaluate and record information

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for evaluating wine
 - 'balance' in relation to wine taste
 - changes to the chemical characteristics of grapes during ripening including acid, sugar and flavour
 - changes to the physical characteristics of grapes during ripening including size, hardness and colour
 - climatic and physical features of wine grape growing areas and wine styles produced
 - factors involved in the initiation and management of primary, secondary and malolactic fermentation processes
 - food safety requirements
 - ideal Australian cellaring conditions
 - main export markets

- packaging, regulations and relationship to product marketing and quality
- sensory evaluation of wines with potential for cellaring
- types and styles of wine produced in Australia
- varieties of wine grapes in Australia
- vintage ratings in Australia

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPT506 Manage a wine making process

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to acquire grapes for processing and prepare for and produce a variety of wine types and styles.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Production horticulture (PHT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine type and style of wine to be produced and	1.1 Determine the type and style of wine to be produced according to variety and characteristics of the grapes, winemaking factors, consumer preferences, client requirements and industry trends

Element	Performance criteria
winemaking process to be followed	1.2 Determine the winemaking process to be followed according to type and style of wine to be produced, quality and quantity of grapes available, and availability of required equipment and personnel
2. Acquire, deliver and prepare grapes for fermentation	2.1 Harvest and handle grapes in accordance with standard vineyard practices and quality criteria 2.2 Acquire and deliver to the winery grapes that meet the desired variety and quality parameters 2.3 Prepare grapes for fermentation, and deliver must or juice to fermentation vessels to meet the desired wine type and style requirements
3. Initiate a ferment	3.1 Select yeasts types/strains to produce a given wine type and style 3.2 Prepare fermentation vessels and transfer must or juice according to wine type and style requirements 3.3 Prepare yeast culture according to specifications and add to fermentation vessels
4. Manage primary fermentation	4.1 Monitor and adjust physical characteristics of ferment 4.2 Monitor and adjust chemical characteristics of ferment 4.3 Predict potential fermentation problems 4.4 Detect the presence of undesirable fermentation characteristics 4.5 Outline steps to rectify fermentation problems 4.6 Rack off gross lees or pressings into appropriate vessels at a determined time 4.7 Maintain records of additions and adjustments
5. Manage secondary fermentation	5.1 Obtain and check oak barrels for serviceability for use if required 5.2 Inoculate wine with selected malolactic fermentation bacteria 5.3 Manage malolactic fermentation to the predetermined end point
6. Mature wine in storage vessels	6.1 Select suitable maturation storage vessels to produce a given wine style and check for serviceability and use 6.2 Transfer wine into the selected vessels according to determined wine style characteristics 6.3 Monitor condition of wine in storage 6.4 Bottle and seal wine 6.5 Make and maintain records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPTH506A Manage a wine making process.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPHT506 Manage a wine making process

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- acquire and process grapes for wine production
- calculate the cost and logistical requirements of components of the wine production
- identify and recommend improvements to viticultural practices that will contribute to enhanced wine quality in the next season
- identify, establish, supervise and monitor daily cellar work practices
- initiate and manage the fermentation process
- make additions and finings as required
- operate the filtration and bottling processes
- operate the range of equipment required to process grapes from winery receipt point to the fermentation tank
- organise and undertake routine cellar operations
- perform chemical analyses necessary for the winemaking process
- perform must handling processes
- plan processes that may be used to maximise production of grapes that meet winery quality requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for managing a wine making process
 - 'balance' in relation to wine taste
 - changes to the chemical characteristics of grapes during ripening, including acid, sugar and flavour

- changes to the physical characteristics of grapes during ripening, including size, hardness and colour
- climatic and physical features of wine grape growing areas and wine styles produced
- equipment and processes for wine filtration
- factors involved in the initiation and management of primary, secondary and malolactic fermentation processes
- ideal Australian cellaring conditions
- must and marc handling procedures
- processes involved in handling grapes from the vineyard to the winery in order to produce wine
- routine winemaking and cellar operation procedures including maintenance of a clean, safe working environment
- ranges of equipment and using this equipment to process grapes and must in a winery
- types and styles of wine produced in Australia
- varieties of wine grapes in Australia
- vineyard practices relevant to the production of grapes that meet the requirements of the winery

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY201 Collect store and handle eggs from breeder flocks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect, store and handle fertile eggs from breeder flocks.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to handle eggs	1.1 Follow biosecurity procedures

Element	Performance criteria
	<p>1.2 Follow personal hygiene requirements including washing and sanitising hands</p> <p>1.3 Identify work health and safety hazards, assess risks and implement suitable controls</p> <p>1.4 Select, use and maintain suitable personal protective equipment and clothing</p> <p>1.5 Check work area is clean</p> <p>1.6 Check equipment is clean and working correctly</p>
2. Collect and sort eggs	<p>2.1 Ensure that nests and egg belts are free of sick or injured birds, carcasses and other obstructions in line with enterprise animal welfare procedures</p> <p>2.2 Collect eggs from nesting system</p> <p>2.3 Collect floor eggs and keep separate</p> <p>2.4 Ensure that procedures are implemented to minimise floor eggs</p> <p>2.5 Control flow of eggs to match handling rate</p> <p>2.6 Remove very dirty, cracked, leakers or weak shelled eggs</p> <p>2.7 Wash eggs as required using approved sanitisers and temperatures</p> <p>2.8 Operate egg handling equipment appropriately</p> <p>2.9 Sort eggs into settable and non-settable and categories within each</p>
3. Pack and store eggs	<p>3.1 Place eggs on appropriate trays with pointed end down</p> <p>3.2 Assemble and stack trays in categories and label clearly and accurately</p> <p>3.3 Transfer eggs to storage in order of age, category or dispatch order</p> <p>3.4 Operate egg storage facilities/ cool rooms according to enterprise procedures</p> <p>3.5 Fumigate eggs if required</p>
4. Complete hygiene and administration activities	<p>4.1 Clean and disinfect or sanitise egg belts/conveyors, equipment and work area</p> <p>4.2 Clean, sanitise and check cool room and equipment</p> <p>4.3 Safely handle and measure chemicals used in the cleaning process</p> <p>4.4 Take and prepare samples for testing as required</p> <p>4.5 Dispose of non settable eggs and waste in line with enterprise environmental policies</p> <p>4.6 Monitor pest and vermin presence and implement control measures in line with enterprise procedures</p> <p>4.7 Record and report all required information and issues</p> <p>4.8 Follow industry standards and enterprise procedures for excess</p>

Element	Performance criteria
	eggs which are destined for human consumption

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPLY201A Collect store and handle eggs from breeder flocks.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPLY201 Collect store and handle eggs from breeder flocks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow personal hygiene requirements
- check nest boxes and egg belts are free of obstructions
- match egg collection equipment flow rate to handling rate
- collect nest and floor eggs and keep separate
- ensure that practices to minimise floor eggs are implemented
- assess and sort eggs into settable and non settable and categories within each
- place eggs on trays pointed end down
- pack, label and store eggs correctly
- complete hygiene and administration activities
- operate egg washing equipment at correct temperature and sanitiser/detergent levels
- clean and sanitise equipment, egg washing equipment, cool rooms and work areas
- monitor pest and vermin presence and implement control measures
- identify work health and safety hazards, assess risks and implement suitable controls
- follow biosecurity requirements
- follow enterprise animal welfare procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- industry standards, codes of practice, and enterprise procedures for collecting, handling, sorting, packing and storing settable eggs
- commonly used methods of pest and vermin control
- types, uses, cleaning and maintenance of machinery and equipment

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- relevant documentation, records and reports that are required
 - criteria for sorting and determining eggs that are unfit for setting and disposal methods
 - procedures for egg handling, collection, washing, sorting, packing, labelling, storage and fumigation
 - temperature, humidity, cleaning and operation for cool rooms and egg washing machines
 - procedures for handling, measurement and usage of cleaning chemicals, disinfectants and sanitisers
 - procedures for taking and handling samples for testing
 - enterprise environmental and sustainability requirements, and procedures for disposal and management of wastes, debris and run-offs
 - enterprise work health and safety, biosecurity and animal welfare policies and procedures

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY202 Maintain health and welfare of poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain poultry health and welfare.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor and assess poultry health and	1.1 Maintain biosecurity protocols and quarantine procedures at all

Element	Performance criteria
welfare	times 1.2 Follow enterprise work health and safety policies 1.3 Check poultry health and welfare regularly 1.4 Recognise and report signs of ill health, common diseases, parasite infestations and physical abnormalities 1.5 Identify cull birds using criteria established by the enterprise or industry quality assurance program 1.6 Record flock health status
2. Provide an optimal environment for poultry	2.1 Check bird housing conditions to ensure that protection is provided from external factors that compromise poultry health and welfare 2.2 Monitor, maintain and operate temperature and humidity control equipment 2.3 Install equipment and housing infrastructure appropriately 2.4 Monitor welfare of poultry and report non-compliance with animal welfare codes promptly 2.5 Record information which is relevant to the welfare and health of stock
3. Administer medicines or other chemicals	3.1 Store labelled veterinary chemicals or other medicines appropriately 3.2 Carry out routine prevention procedures for disease agents and parasites 3.3 Handle and measure medicines and chemicals safely and appropriately for administration 3.4 Medicate poultry appropriately as instructed or under supervision where required 3.5 Complete required documentation and records for administration of medicines and chemicals
4. Collect samples for analysis	4.1 Take swabs from surfaces and work areas regularly and prepare swabs for laboratory testing 4.2 Label and pack swabs and samples for dispatch appropriately
5. Remove non-viable poultry	5.1 Identify and remove sick, injured or unthrifty poultry in line with enterprise animal welfare policies 5.2 Treat sick poultry 5.3 Provide post-mortem assistance where necessary
6. Report and complete records	6.1 Report individual bird and flock health status promptly so that prevention strategies can be planned and implemented 6.2 Complete all required documentation and records clearly, promptly and accurately, and store appropriately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPLY202A Maintain health and welfare of poultry.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPLY202 Maintain health and welfare of poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- monitor and assess poultry health and welfare
- provide an optimal environment for poultry
- administer medicines or other chemicals
- collect samples for analysis
- remove non-viable poultry
- report and complete records
- follow enterprise work health and safety policies
- follow biosecurity protocols
- follow enterprise animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant regulatory requirements, codes of practice, industry standards and enterprise procedures for biosecurity and quarantine
- relevant regulatory requirements, codes of practice, industry standards and enterprise procedures for animal welfare of poultry
- signs of health, signs of ill health, and methods for assessing poultry health and welfare
- common diseases of poultry, treatment regimes, prevention and management strategies
- criteria for determining birds to be culled
- relevant documentation, records and reports that are required
- types, functions and characteristics of housing, housing infrastructure and housing equipment for poultry, and the criteria and methods for determining that they are in working condition

- types, uses, handling, storage and routes of administration of commonly used veterinary medicines and chemicals
- procedures for taking, handling, labelling, packing and transporting swab samples
- procedures for assisting a post-mortem examination
- effects and impacts of individual bird health and welfare on flock health status and vice versa
- relevant work health and safety requirements and environmental policies

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY203 Set up shed for placement of day-old chickens

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to set up shed for placement of day-old chickens.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work in	1.1 Follow biosecurity procedures

Element	Performance criteria
poultry shed	1.2 Confirm work to be undertaken from work program and management 1.3 Follow enterprise work health and safety policies 1.4 Select, use and maintain suitable personal protective equipment 1.5 Select, check and maintain tools and equipment
2. Check and maintain shed and equipment	2.1 Check biosecurity procedures are in place to prevent entry of pathogens on personnel and equipment 2.2 Check shed and all equipment are clean, sanitised to required standards and maintained in working condition 2.3 Check that pest and vermin controls are in place, and maintain if required 2.4 Ensure that rodent barriers are in place and working 2.5 Operate and check lights, time switches and shed equipment
3. Prepare shed	3.1 Spread or place litter/paper as per enterprise procedures 3.2 Ensure litter/paper is clean & dry 3.3 Setup feeders, drinkers, heaters and other equipment in shed 3.4 Ensure that bird wires are in place and working 3.5 Install brooder curtains if required 3.6 Test watering, feeding, ventilation and cooling systems 3.7 Check and adjust lighting levels for day old chicks 3.8 Reset or adjust shed climate management system if required 3.9 Test alarm systems and time switches 3.10 Test brooders for proper operation and temperature control 3.11 Adjust time clocks 3.12 Install additional drinkers if required 3.13 Install additional feeders or lay paper & spread feed on it as required 3.14 Start heaters prior to chick placement to ensure brooding section is at required temperature for chick placement
Place chicks	4.1 Check that feed, water and shed conditions are adequate 4.2 Check shed and litter are at required temperatures 4.3 Carry chick containers safely and gently remove chickens from boxes and place on litter or paper 4.4 Check chick behaviour and health regularly after placement in line with enterprise animal welfare policies
Complete hygiene and administration activities	5.1 Clean and sanitise containers and equipment as required 5.2 Dispose of waste in line with enterprise environmental policies 5.3 Complete required records and documentation promptly and accurately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPLY203A Set up shed for placement of day-old chickens.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPLY203 Set up shed for placement of day-old chickens

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- make preparations to work in poultry sheds
- check cleanliness of shed and equipment
- check and maintain shed and equipment
- check pest and vermin controls are in place
- prepare shed (spread litter or place paper, setup feeders, drinkers, adjust time clocks)
- place day old chicks
- check chick behaviour
- complete hygiene and administration activities
- follow enterprise work health and safety policies
- follow biosecurity procedures
- follow enterprise animal welfare and environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant regulatory requirements, codes of practice, industry standards and enterprise procedures for biosecurity
- relevant animal welfare requirements and practices for poultry and day old chicks
- types, uses, cleaning and maintenance of suitable equipment, tools, machinery and personal protective equipment
- types, characteristics, cleaning and maintenance of poultry sheds
- commonly used methods of pest and vermin control
- types, characteristics and maintenance of bird wires and rodent barriers

- lighting systems, time switches, alarm systems, brooders, watering systems, feeding systems, ventilation systems and fogging systems, and methods for determining that they are in working condition
- requirements of day old chicks to ensure their health and welfare
- behavioural signs of health and methods for assessing health and welfare in day old chicks
- types, characteristics, uses and maintenance of litter for poultry
- biosecurity requirements for brooding and rearing chickens
- relevant environmental and sustainability requirements, and procedures for disposal and management of wastes
- relevant documentation and records that are required
- relevant work health and safety requirements

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY204 Collect and pack eggs for human consumption

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect and pack eggs intended for human consumption *to be* ready for transfer to the grading and packing floor.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work	1.1 Follow biosecurity requirements

Element	Performance criteria
	1.2 Follow personal hygiene requirements such as washing and sanitising hands 1.3 Follow enterprise work health and safety policies 1.4 Select, use and maintain appropriate personal protective equipment and clothing 1.5 Check & clean work area 1.6 Check equipment is clean and working correctly
2. Collect eggs	2.1 Ensure that nests and egg belts are free of sick or injured birds, carcasses and other obstructions in line with enterprise animal welfare policies 2.2 Control flow of eggs to match handling rate 2.3 Remove heavily marked, dirty, cracked, leakers or weak shelled eggs and useless eggs 2.4 Collect eggs by placing eggs onto trays or into baskets
3. Pack and store eggs	3.1 Pack eggs, keeping production categories separate and wrap pallets as required ready for transport 3.2 Label packed eggs, pallets and all packing requirements correctly 3.3 Check cool room temperature and humidity 3.4 Transfer eggs to cool room or grading floor
4. Clean and sanitise equipment and sites	4.1 Clean and sanitise egg belts/conveyors and all equipment and work areas 4.2 Clean and sanitise cool room and equipment 4.3 Control pests in egg collection, packing and storage areas 4.4 Handle and measure chemicals used in the washing and cleaning equipment safely 4.5 Take samples for testing if required 4.6 Dispose of non-conforming eggs and waste according to enterprise environmental management requirements 4.7 Complete records clearly and accurately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCPLY204A Collect and pack eggs for human consumption.
No unit equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPLY204 Collect and pack eggs for human consumption

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply personal hygiene requirements
- check nest boxes and egg belts are free of obstructions
- match egg collection equipment flow rate to handling rate
- collect eggs
- assess and sort eggs
- pack and store eggs
- clean and sanitise equipment, cool rooms and work area
- check equipment is working correctly
- follow enterprise work health and safety policies
- follow biosecurity requirements
- follow animal welfare policies
- follow enterprise environmental management requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- industry standards, codes of practice, and enterprise procedures for collecting, handling, sorting, packing and storing eggs
- commonly used methods of pest and vermin control
- relevant documentation and records that are required
- types, uses, cleaning, maintenance and servicing of equipment and machines
- criteria for sorting and determining eggs that are unfit for sale and disposal methods
- temperature, humidity, cleaning and operation for cool rooms

- procedures for taking and handling egg samples for testing
- relevant environmental and sustainability requirements, and procedures for disposal and management of wastes, debris and run-offs
- relevant work health and safety, biosecurity and animal welfare requirements

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY205 Grade and pack eggs for human consumption

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to grade and pack eggs for human consumption.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work	1.1 Follow enterprise biosecurity requirements

Element	Performance criteria
	1.2 Follow enterprise personal hygiene requirements such as washing and sanitising hands 1.3 Select, use and maintain appropriate personal protective equipment and clothing 1.4 Check & clean work area 1.5 Check equipment is working correctly 1.6 Follow enterprise work health and safety policies
2. Assess and grade eggs	2.1 Load eggs onto grader 2.2 Control flow of eggs to match grader flow rate 2.3 Remove very dirty, cracked and leaking eggs 2.4 Candle eggs accurately 2.5 Grade eggs into appropriate weight and quality grades 2.6 Stamp eggs 2.7 Wash eggs using approved sanitisers and equipment as required 2.8 Check wash and rinse water temperature 2.9 Check egg washer sanitiser level and application rate 2.10 Oil eggs when required 2.11 Check oil type and application rate 2.12 Take and prepare samples for testing if required
3. Pack and store eggs	3.1 Pack eggs into cartons or trays and into boxes and assemble as required onto pallets and wrap pallets 3.2 Ensure eggs, trays, cartons, boxes and pallets are stamped and labelled correctly 3.3 Ensure correct separation of non-conforming products and saleable products 3.4 Check cool room temperature and humidity 3.5 Transfer eggs to cool room
4. Clean and sanitise equipment and sites	4.1 Report problems and abnormal equipment operations such as noises to supervisor 4.2 Clean and sanitise egg conveyors, cool room, all equipment and work areas 4.3 Monitor and report sightings or activities of pests in egg collection, grading, and storage areas 4.4 Handle and measure chemicals used in the egg washing and cleaning process safely 4.5 Dispose of useless eggs and waste according to enterprise environmental policies 4.6 Complete records clearly and accurately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCPLY204A Collect and pack eggs for human consumption.
No unit equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPLY205 Grade and pack eggs for human consumption

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow personal hygiene requirements
- match egg feed rate to grading equipment flow rate
- assess and grade eggs
- pack and store eggs
- clean and sanitise equipment, cool rooms and work area
- check equipment is working correctly
- follow enterprise work health and safety policies and biosecurity requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- industry standards, codes of practice, and enterprise procedures for sorting, candling, grading, washing, oiling, packing and storing eggs
- commonly used methods of pest and vermin control
- egg labelling requirements
- relevant documentation and records that are required
- types, uses, cleaning and maintenance of equipment and machines
- criteria for determining non-conforming eggs and disposal methods
- temperature, humidity, cleaning and operation for cool rooms
- temperatures, cleaning and sanitising and operation of the egg washing process
- procedures for handling, measurement and usage of egg washing and cleaning chemicals, and sanitisers
- procedures for taking and handling egg samples for testing

- relevant environmental and sustainability requirements, and procedures for disposal and management of wastes, debris and run-offs
- relevant work health and safety and biosecurity requirements

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY206 Catch and load poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to catch, handle and load poultry for transfer to new facilities or processing plant. Poultry can be meat chickens, layer or breeder pullets or spent hens.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to catch or pick up poultry	1.1 Follow biosecurity procedures 1.2 Confirm and identify sheds, flocks and bird numbers to be caught and loaded 1.3 Identify work health and safety hazards, assess risks and implement suitable controls 1.4 Select, use and maintain suitable personal protective equipment 1.5 Dim lights and set ventilation and cooling appropriately 1.6 Raise feeders, drinkers, nests and perches as required 1.7 Check and ensure that catching, movement path and vehicle loading area is clear of all obstacles 1.8 Set up catching equipment according to age, stock type and production system 1.9 Select, use and maintain tools and equipment 1.10 Follow relevant work health and safety and animal welfare procedures
2. Catch or pick up poultry	2.1 Quietly and calmly move birds into catching area 2.2 Catch and handle birds gently and calmly 2.3 Place birds in crates/modules according to space or weight requirements 2.4 Check birds regularly for overheating and smothering 2.5 Move crates/modules and load onto vehicle gently and calmly
3. Complete hygiene and administration activities	3.1 Clean, sanitise, maintain and appropriately store equipment and tools 3.2 Dispose of waste and debris in line with enterprise environmental procedures 3.3 Complete required records and documentation promptly and accurately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPY206 Catch and load poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow biosecurity requirements
- identify flocks or shed to be caught
- make preparations for catching
- set up shed and catching area
- catch and handle poultry gently, quietly and calmly
- load birds into crates/modules according to space or weight requirements
- complete hygiene and administration requirements
- follow work health and safety procedures
- follow biosecurity procedures
- follow animal welfare procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant work health and safety requirements
- relevant biosecurity requirements
- relevant animal welfare requirements and practices
- types, uses, cleaning and maintenance of equipment, tools, machinery and personal protective equipment required
- techniques and methods for handling, catching, placing into containers and loading poultry
- how to assess poultry condition and welfare including overheating and smothering

- relevant environmental requirements, and procedures for disposal and management of wastes, debris and fluids
- relevant documentation and records that are required

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY207 Identify and sex poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify and sex poultry by feather or plumage colour.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to sex birds	1.1 Confirm work to be undertaken from work program and management

Element	Performance criteria
	1.2 Follow biosecurity procedures 1.3 Follow animal welfare requirements 1.4 Select, check and maintain tools and equipment 1.5 Identify work health and safety hazards, assess risks and implement suitable controls 1.6 Select, use and maintain suitable personal protective equipment
2. Identify and sex birds	2.1 Confirm and identify hatchlings to be sexed 2.2 Handle and sort chickens with care 2.3 Sex birds according to method 2.4 Place sexed chicks into trays marked accordingly
3. Complete hygiene and administration activities	3.1 Dispose of all debris and waste in line with enterprise environmental policies 3.2 Clean, maintain and store tools, machinery and equipment appropriately 3.3 Clean and maintain work areas 3.4 Complete documentation, records and reports promptly and accurately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCPLY303A Identify and sex birds.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPLY207 Identify and sex poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow biosecurity procedures
- make preparations to sex poultry
- identify hatchlings to be sexed
- sex poultry using feather or colour sexing methods
- handle birds appropriately
- follow hygiene requirements
- follow administration requirements
- follow animal welfare requirements
- implement enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- feather and colour sexing methods
- methods for identifying trays of hatchlings
- types and use, of machinery and equipment required
- relevant work health and safety requirements
- methods and animal welfare considerations for handling and holding poultry
- relevant environmental and sustainability requirements, and procedures for disposal and management of wastes
- requirements and procedures for cleaning and maintaining work areas
- relevant records that are required
- relevant biosecurity requirements

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY301 Artificially inseminate poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect semen and artificially inseminate poultry.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for insemination of birds	1.1 Schedule timing to ensure availability of resources and personnel 1.2 Implement biosecurity procedures

Element	Performance criteria
	1.3 Implement animal welfare requirements 1.4 Follow enterprise procedures for personal hygiene 1.5 Follow enterprise work health and safety policies 1.6 Select, use and maintain personal protective equipment 1.7 Prepare, clean and sterilise insemination equipment by following enterprise procedures for cleaning chemicals, disinfectants and sanitisers 1.8 Prepare birds for semen collection and insemination
2. Collect semen	2.1 Identify males for semen collection 2.2 Catch and handle birds appropriately 2.3 Collect semen aseptically 2.4 Store semen
3. Inseminate birds	3.1 Prepare semen for insemination 3.2 Identify intended recipient birds 3.3 Catch, restrain and prepare hen for insemination appropriately 3.4 Inseminate hen using appropriate aseptic procedures 3.5 Return birds to allocated pens
4. Complete hygiene and administration activities	4.1 Dispose of waste and debris according to recommended hygiene standards and environmental policy 4.2 Clean work area appropriately 4.3 Clean, maintain and store equipment appropriately 4.4 Complete records promptly and accurately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPLY301A Artificially inseminate birds.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPLY301 Artificially inseminate poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for artificial insemination of poultry
- apply personal hygiene
- carry out semen collection
- carry out artificial insemination of birds
- complete hygiene and administration activities
- implement biosecurity procedures
- implement animal welfare requirements
- follow enterprise work health and safety policies
- implement enterprise hygiene standards and environmental policy

Knowledge Evidence

The candidate must demonstrate knowledge of:

- resource and manpower requirements, biosecurity requirements, industry standards, codes of practice and procedures for artificial insemination of poultry
- relevant animal welfare practices for the conduct of artificial insemination in poultry
- relevant work health and safety requirements
- collection, handling, storage and use of poultry semen for artificial insemination
- preparation of birds for collection of semen and insemination
- handling, dilution and insemination of poultry
- types, uses, maintenance and storage of equipment
- methods and procedures for cleaning and sterilisation of equipment used for artificial insemination

- procedures for handling, measurement and usage of cleaning chemicals, disinfectants and sanitisers
- relevant documentation and records that are required
- relevant environmental and sustainability requirements, and procedures for disposal and management of wastes and debris
- requirements and procedures for cleaning and maintaining work areas

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY302 Brood poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to brood poultry.

This unit applies to all poultry species and breeds.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for brooding	1.1 Confirm work to be undertaken from work program and

Element	Performance criteria
	<p>management</p> <p>1.2 Follow biosecurity procedures</p> <p>1.3 Hold discussions with other workers who may be affected by the brooding operations to ensure smooth operation of enterprise production processes</p> <p>1.4 Select, check and maintain tools and equipment</p> <p>1.5 Identify work health and safety hazards, assess risks and implement suitable controls</p> <p>1.6 Select, use and maintain suitable personal protective equipment</p>
2. Place hatchlings	<p>2.1 Check shed and equipment has been set up correctly for placement of chickens and for brooding</p> <p>2.2 Start heaters prior to chick placement to ensure brooding section is at required temperature for chick placement</p> <p>2.3 Check feed, water and shed conditions are adequate</p> <p>2.4 Check shed and litter are at required temperatures</p> <p>2.5 Carry chick containers safely and gently remove chickens from boxes and place on litter, paper or matting</p> <p>2.6 Check chick behaviour regularly after placement</p> <p>2.7 Follow enterprise animal welfare policies</p>
3. Carry out brooding operations	<p>3.1 Observe chick behaviour regularly</p> <p>3.2 Check temperature regularly and adjust according to chicks requirements</p> <p>3.3 Pick up dead birds and dispose of carcasses</p> <p>3.4 Identify and remove sick, injured or unthrifty birds</p> <p>3.5 Remove paper or matting at appropriate time</p> <p>3.6 Extend brooding area as young birds grow</p> <p>3.7 Check equipment, shed climate, litter condition and ventilation regularly, and adjust as necessary</p> <p>3.8 Clean drinkers and equipment regularly</p> <p>3.9 Remove wet litter and replace where appropriate</p> <p>3.10 Adjust lighting program as chickens grow</p> <p>3.11 Carry out black-out training where required</p> <p>3.12 Monitor beak tipping at appropriate times</p> <p>3.13 Monitor body weight regularly</p> <p>3.14 Monitor feed and water intake</p>
4. Complete cleaning, maintenance and administration activities	<p>4.1 Dispose of waste in line with enterprise environmental policies</p> <p>4.2 Clean, maintain and store tools, machinery and equipment appropriately</p> <p>4.3 Clean and maintain work areas</p>

Element	Performance criteria
	4.4 Complete records promptly and accurately and report to management

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPLY302A Brood poultry.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHPLY302 Brood poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- check and confirm that shed or section is ready for brooding
- place hatchlings
- carry out brooding operations
- monitor chick behaviour and sensors and adjust temperature and ventilation appropriately
- monitor body weight and beak tipping where applied regularly
- complete cleaning, maintenance and administration activities
- implement work health and safety policies
- follow biosecurity procedures
- follow enterprise animal welfare policies
- apply enterprise environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the effects and impacts of brooding operations on enterprise production processes
- the types, uses, maintenance and storage of relevant tools, machinery and equipment
- relevant work health and safety requirements
- the requirements, industry standards, codes of practice and procedures for welfare and health of poultry during brooding
- the effects and impacts of temperature and shed climate on chick behaviour and how temperature and shed conditions are checked
- the range, effects and impacts of stocking density and overcrowding on poultry behaviour, health and welfare
- the relevant lighting and lighting programs for chickens and pullets and effects on welfare and performance

- relevant environmental and sustainability requirements, and procedures for disposal and management of wastes
- the requirements and procedures for cleaning and maintaining work areas
- relevant records and reports that are required
- describe relevant animal welfare and biosecurity requirements

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY304 Incubate eggs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to incubate eggs.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

Candidates should confirm the regulatory requirements in regard to the use of fumigants that apply in their relevant State or Territory before undertaking this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Receive and store eggs	1.1 Implement enterprise work health and safety policies 1.2 Implement enterprise biosecurity procedures 1.3 Unload eggs and record required information 1.4 Transfer eggs from delivery dollies/trolleys to setter dollies/trolleys 1.5 Store eggs with regard to position, temperature, humidity and period of storage 1.6 Attach eggs to turning machine to ensure maximum viability is maintained 1.7 Manage egg stock to minimise egg age on setting 1.8 Monitor temperature, humidity and airflow to maintain required settings
2. Monitor and operate setter	2.1 Take and record setter readings 2.2 Recognise alarms and carry out specified sequence of operations during a breakdown 2.3 Operate, repair and maintain setter 2.4 Calibrate temperature probes with known standards
3. Transfer eggs to hatcher	3.1 Move dollies to the egg handling and transfer area in the sequence required by the organisation 3.2 Check temperature, humidity and airflow 3.3 Transfer eggs to hatching trays in sequence

Element	Performance criteria
4. Fumigate setter or hatcher	4.1 Determine need for fumigation from supervisor's instructions 4.2 Prepare fumigant and apparatus 4.3 Seal and fumigate setter or hatcher 4.4 Air room or chamber to completely remove traces or vapours of the fumigant prior to re-entry of staff, re-installation of equipment and placement of eggs
5. Monitor and operate hatcher	5.1 Take and record readings 5.2 Carry out adjustments to temperature, humidity and airflow when instructed 5.3 Recognise alarms and carry out correct sequence of operations during a breakdown as set out by employer
6. Complete hygiene and administration activities	6.1 Dispose of waste and debris from the work areas in line with enterprise environmental policies 6.2 Clean, maintain and store tools, equipment and machinery 6.3 Clean and maintain safe work areas 6.4 Complete documentation, records and reports promptly and accurately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPLY304A Incubate eggs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHPLY304 Incubate eggs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- receive and store eggs
- monitor and operate setter
- transfer eggs to hatcher
- fumigate setter or hatcher
- monitor and operate hatcher
- complete hygiene and administration activities
- implement enterprise work health and safety policies
- implement enterprise biosecurity procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- requirements, methods and procedures for handling, unloading, storing, transferring and turning eggs
- types, uses, cleaning, maintenance and storage of machinery, equipment and tools used in incubating operations
- range, effects and impacts of environmental parameters on incubating eggs
- types, handling, use and disposal of fumigating agents, work health and safety and environmental practices for these agents
- relevant environmental and sustainability requirements, and procedures for disposal and management of wastes and debris
- requirements and procedures for cleaning and maintaining work areas
- relevant documentation and records that are required
- enterprise work health and safety policies
- relevant biosecurity requirements

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY305 Beak tip poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to tip the beaks of poultry.

This unit applies to beak treatment of day old chicks and beak trimming of poultry of various ages. Poultry include all poultry species and breeds used for meat or egg production.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

AHCLSK307 Euthanase livestock.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare to beak tip birds	<p>1.1 Follow site entry biosecurity procedures as specified by the enterprise</p> <p>1.2 Flock for beak tipping is identified and health and welfare of birds are assessed prior to the beak tipping operation</p> <p>1.3 Confirm beak tipping instructions with farm management and communicate clearly to team personnel</p> <p>1.4 Select, check and maintain equipment, tools and personal protective equipment suitable for the beak tipping operation</p> <p>1.5 Identify birds to be culled and euthanase appropriately</p> <p>1.6 Set up equipment according to age, breed and production system of flock</p> <p>1.7 Identify work health and safety hazards, assess risks and implement suitable controls</p> <p>1.8 Prepare a clean and safe area for the beak tipping operation</p>
2. Carry out beak tipping	<p>2.1 Handle birds according to enterprise animal welfare policies, relevant regulatory requirements, codes of practice and industry standards</p> <p>2.2 Assess beak shape, length and hardness</p> <p>2.3 Beak treat or beak trim birds appropriately</p> <p>2.4 Check trimmed beaks and re-cauterise bleeding beaks</p> <p>2.5 Monitor the welfare of birds throughout the beak tipping operation</p> <p>2.6 Check the welfare of beak tipped birds and make adjustments to equipment where necessary</p> <p>2.7 Identify birds to be culled that have been compromised by the beak tipping operation, and carry out euthanasia in line with enterprise policies</p>
3. Complete beak tipping and post-operation procedures	<p>3.1 Assess and check that beak lengths and beak steps meet enterprise standards</p> <p>3.2 Complete required documentation and records, and make reports to enterprise if required</p> <p>3.3 Complete enterprise biosecurity procedures</p> <p>3.4 Clean, sanitise, maintain and appropriately store equipment and tools</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPLY305A Beak trim chickens.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPLY305 Beak tip poultry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- make preparations for beak tipping poultry
- carry out beak tipping
- complete beak tipping and post-operation procedures
- carry out euthanasia of cull birds in line with enterprise policies
- implement enterprise work health and safety policies
- implement enterprise biosecurity procedures
- implement animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant regulatory requirements, industry standards, codes of practice and enterprise biosecurity principles and enterprise requirements for poultry production
- relevant work health and safety requirements for beak tipping operations
- relevant animal welfare principles and practices for beak tipping operations
- signs of health, signs of ill health and methods of assessing health and welfare of poultry
- beak treatment and beak trimming procedures and the effects and impacts (negative and positive) of such procedures on the health and welfare of poultry
- relevant regulatory requirements, codes of practice, industry standards, methods and procedures for euthanasia of poultry
- types, uses, cleaning, maintenance and servicing of beak treatment and beak trimming equipment and tools
- site preparation procedures for beak tipping operations
- criteria for determining birds to be culled before and after beak tipping operations

- types and uses of documentation, records and reports that are required for beak tipping operations

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY306 Clean and disinfect poultry production sheds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to wet or dry clean and disinfect (sanitise, disinfect or fumigate) sheds used for poultry production. The standard of cleaning and disinfection applied depends in the type of stock, enterprise disease status and disease risk.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

Candidates should confirm the regulatory requirements in regard to the use of fumigants that apply in their relevant State or Territory before undertaking this unit.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to clean sheds	1.1 Confirm work requirements 1.2 Confirm standard of cleaning (wet or dry), sanitation, disinfection or fumigation required 1.3 Identify work health and safety hazards, and assess risks and implement suitable controls 1.4 Select, use and maintain suitable personal protective equipment 1.5 Identify environmental impacts of cleaning the shed, assess likely outcomes and take responsive action 1.6 Raise, dismantle or remove equipment for cleaning 1.7 Raise or remove feed and watering equipment, and clean to industry standards 1.8 Cover or seal electrical switchboards and other equipment to prevent entry of water
2. Clean sheds and surrounds	2.1 Apply insecticides for initial knock down if required 2.2 Remove and dispose of litter or manure and sweep floors 2.3 Service filters and flush drinker lines and tanks 2.4 Clean shed, feeders, drinkers and equipment 2.5 Empty and clean silos 2.6 Mix chemicals, detergents and disinfectants appropriately 2.7 Dry clean electrical equipment 2.8 Manage waste, effluent and run-offs from cleaning activity appropriately 2.9 Maintain all shedding, equipment and machinery
3. Sanitise, disinfect or fumigate sheds	3.1 Prepare equipment (including safety equipment) and chemicals for application of sanitiser, disinfectant or fumigant 3.2 Prepare shed for sanitisation, disinfection or fumigation by sealing sensitive and or electrical equipment 3.3 Seal shed to minimise escape of disinfectant to the outside 3.4 Carry out disinfection of shed according to legislative, enterprise and manufacturers requirements 3.5 Air shed to completely remove traces or vapours of the disinfectant prior to re-entry of staff, re-installation of equipment and placement of eggs 3.6 Apply insecticides if required
4. Complete hygiene and	4.1 Check cleaning and disinfection is done correctly

Element	Performance criteria
administration tasks	4.2 Apply biosecurity requirements 4.3 Clean and maintain cleaning and disinfection equipment, disinfect and store 4.4 Dispose of leftover fluids, containers and waste in line with enterprise environmental policies 4.5 Complete records and documentation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPLY306A Clean and fumigate intensive production sheds.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPLY306 Clean and disinfect poultry production sheds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- make preparations to clean sheds
- raise or remove equipment including feeders and drinkers
- clean equipment, sheds and surrounds
- maintain sheds, silos, feeders, drinkers and all equipment
- clean silos safely
- prepare sheds and equipment for cleaning
- sanitise, disinfect or fumigate sheds and equipment safely and in line with legislative requirements
- apply insecticide both in and outside shed
- dry clean and effectively cover electrical equipment
- complete hygiene and administration tasks
- implement enterprise work health and safety procedures
- apply biosecurity requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of sheds, machinery and equipment found in sheds
- how to handle, raise or remove equipment in sheds
- methods of sealing or covering electrical or sensitive equipment to prevent entry of water
- methods for litter and manure removal
- methods for dry cleaning electrical equipment
- procedure for dry or wet cleaning sheds and equipment

- environmental impacts of shed cleaning operation, and measures to mitigate these impacts
- equipment and machinery used for shed cleaning and disinfection, its operation, maintenance and storage
- methods of disposal of effluent and waste
- cleaning, maintenance and servicing of filters, drinker lines, tanks and silos
- handling and application of insecticides, sanitisers, disinfectants and fumigants and the relevant legislative requirements
- types, handling, use and disposal of cleaning agents
- types of documentation and records that need to be completed after the cleaning operations
- relevant work health and safety requirements
- relevant biosecurity requirements
- environmental impacts and controls of cleaning and fumigating sheds
- chemical spillage management and safety equipment and clothing

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPLY307 Implement and monitor biosecurity measures in poultry production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement and monitor biosecurity measures for poultry enterprises.

All work must be carried out to comply with workplace procedures, legislation, codes of practice, and guidelines relating to work health and safety, biosecurity, animal welfare, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They provide and communicate solutions to a range of predictable problems in relation to biosecurity.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Note:

Pest is a bird or animal or insect which can be a carrier of infectious disease or which can cause stock losses or loss of productivity through predation.

Weed is a poisonous plant or one declared as a noxious weed (free range runs).

Pre-requisite Unit

Nil.

Unit Sector

Poultry (PLY)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Apply biosecurity procedures for site entry	1.1 Identify potential biosecurity threats to the enterprise 1.2 Identify potential sources of disease, pest or weed contamination being carried between sites 1.3 Consult with supervisor and management on the requirements for maintaining the enterprise as a biosecure zone as appropriate, in compliance with relevant legislation, Codes of Practice, industry guidelines and enterprise procedures 1.4 Maintain the integrity of enterprise as a biosecure zone 1.5 Maintain personal sanitation and hygiene on entry to enterprise 1.6 Complete sign in procedures 1.7 Ensure contractors and visitors are signed in, checked for risk profile and instructed in biosecurity requirements 1.8 Ensure all equipment, machinery or vehicles prior to entry onto the site are cleaned and disinfected 1.9 Check poultry, feed and feed ingredients to be introduced to the enterprise for health, pest and contamination status and isolate them from other poultry and feedstock where necessary 1.10 Implement enterprise work health and safety policies 1.11 Use and maintain appropriate personal protective equipment
2. Implement biosecurity procedures to minimise spread of disease, pest or weed where relevant within the enterprise	2.1 Implement procedures for entering production areas or facilities or moving from one site to another 2.2 Implement enterprise requirements, order of priority and prescribed routes for specified movements of personnel, vehicles, equipment, feedstuffs and poultry 2.3 Ensure all surface water used for drinking, cooling and washing down is sanitised 2.4 Implement appropriate personal sanitation and equipment cleaning procedures for movement between sites 2.5 Implement a health control program including vaccination 2.6 Keep enterprise areas clear of debris 2.7 Implement biosecure procedures for carcass, effluent, organic waste and inorganic waste removal and disposal
3. Implement biosecurity procedures on detection of disease, pest or weed where	3.1 Identify signs of disease, pest or weed incursion, or unusual signs in the poultry flocks 3.2 Follow enterprise animal welfare policies

Element	Performance criteria
relevant	3.3 Assess severity and extent of disease or incursion 3.4 Seek immediate advice from supervisors, professionals or appropriate authorities where signs indicate an unusual disease or pest presence 3.5 Immediately report signs of unusual disease or pest to management or appropriate authorities 3.6 Implement instructions from supervisors, enterprise and appropriate authorities for additional biosecurity measures
4. Apply enterprise sanitation and disinfection practices to reduce the risk of disease, pest or weed	4.1 Ensure all used bedding, organic and inorganic waste are removed from facilities or sites and disposed of in line with enterprise environmental policies 4.2 Remove dust from surfaces 4.3 Clean production areas, facilities or sites using pressure cleaning, water or dry cleaning method where appropriate 4.4 Clean feeding and watering equipment using an appropriate method 4.5 Sanitise or disinfect facilities, sites and equipment appropriately
5. Implement pest control	5.1 Identify pests that can introduce or spread high risk pathogens 5.2 Exclude wild birds from the poultry housing and other pests from the facilities by effective physical barriers 5.3 Monitor wild bird and pest numbers 5.4 Carry out procedures to discourage wild birds and to control pests
6. Monitor, record and report	6.1 Monitor effectiveness and progress of control activities and compare with enterprise requirements 6.2 Monitor production areas, facilities or sites as part of work duties to ensure work practices and procedures are applied 6.3 Complete records accurately and timely 6.4 Report issues and concerns with biosecurity to management 6.5 Work with management to review procedures, activities and communicate revisions to other staff

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPLY307 Implement and monitor biosecurity measures in poultry production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply biosecurity procedures for site entry and between sections
- implement biosecurity procedures
- implement biosecurity procedures as instructed on detection of disease, pest or weed where relevant
- identify abnormal signs in a flock
- implement wild bird, pest and weed control measures
- monitor application of biosecurity procedures
- implement enterprise work health and safety policies
- implement enterprise animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant statutory requirements, codes of practice, industry standards and procedures for biosecurity
- types, characteristics, methods of spread, signs, prevention, control and treatment of diseases, pests or weeds relevant to the enterprise
- requirements for maintaining an enterprise as a biosecure zone including perimeter fencing, lockable gates, vehicle access, enterprise boundaries, production area boundaries, dirty and clean production areas, poultry housing and pasture boundaries and appropriate signage
- specific biosecurity procedures applicable to an enterprise and enterprise work routines, including personnel, visitors, vehicles, equipment, machinery, introduced poultry, pests, wild birds and health program

- requirements, procedures and resources for entry to enterprise, production areas, facilities or sites
- normal signs of a healthy flock
- relevant work health and safety requirements
- methods and procedures for cleaning and disinfection of facilities, sheds, feeding and watering equipment and other shed equipment
- requirements, methods and procedures for treatment and sanitisation of drinking, cooling and washing down water supplies as appropriate to an enterprise
- procedures for handling, measurement and usage of cleaning chemicals, disinfectants and sanitisers
- relevant environmental and sustainability requirements, methods and procedures for disposal and management of effluent, organic and inorganic waste and debris
- essential principles and key aspects of Commonwealth and State disease control emergency plans, including AUSVETPLAN
- types and maintenance of relevant documentation and records
- requirements and methods for reporting, reviewing, revising and communicating biosecurity procedures

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG201 Treat weeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recognise significant weed species and apply a range of weed treatment control options.

This unit applies to supervised workers treating weeds in commercial crops, nurseries, parks and gardens, turf, and natural areas and is carried out following strict work instructions and under supervision.

Supervisors are required to hold current chemical handling certification and a first aid certificate. Other licensing conditions may also apply to this unit. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to treat weeds	1.1 Recognise target weeds by common name 1.2 Record details of the weed occurrence and discuss with supervisor

Element	Performance criteria
	1.3 Identify appropriate control technique with supervisor 1.4 If spraying is necessary, calculate application rates required and confirm calculations with supervisor 1.5 Select and prepare equipment for use according to enterprise guidelines, supervisor's direction and manufacturer's specifications 1.6 Place caution or warning signs as required by work instructions or standard operating procedures 1.7 Identify work health and safety and environmental hazards and report safety concerns to the supervisor
2. Treat weeds	2.1 Wear personal protective equipment according to manufacturer's specifications 2.2 Prepare treatments according to supervisor's instructions, manufacturer guidelines, label directions and safety data sheets 2.3 Apply treatments to minimise damage to non-target species according to work health and safety and regulatory requirements
3. Carry out post treatment operation	3.1 Clean and store personal protective equipment and application equipment 3.2 Dispose of treatment waste in a way that causes minimal environmental damage 3.3 Maintain records according to enterprise guidelines and regulatory requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPMG201A Treat weeds

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG201 Treat weeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow supervisor instructions to prepare and apply treatments to weeds
- identify and report safety and environmental hazards according to workplace requirements
- shut down and clean and store personal protective equipment and application equipment in a way that minimises environmental impacts
- dispose of treatment waste according to workplace procedures and without causing environmental damage
- maintain records according to workplace and legislative requirements
- use standard industry terminology for plants, weeds and chemicals
- apply work health and safety practices in the context of own work
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- sources of information on weeds and treatments
- environmental considerations when using chemicals for treating weeds
- equipment required to complete the task
- equipment capabilities and limitations
- personal protective equipment required for treating weeds
- weeds and dispersal methodologies common to work area
- a range of treatment methods
- caution or hazard signs and signals
- purpose of chemical labels and safety data sheets
- where to access safety data sheets

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG202 Treat plant pests, diseases and disorders

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to treat plant pests, diseases and disorders.

This unit applies to supervised workers in plant or pasture-based industries and is carried out following strict work instructions and under supervision.

Supervisors are required to hold current chemical handling certification.

No other occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to treat plant pests, diseases and disorders	1.1 Recognise plant pests, diseases and disorders by common name 1.2 Record details of the plant pest, disease and disorder occurrence and report to the supervisor

Element	Performance criteria
	1.3 Select treatment methods in consultation with the supervisor 1.4 Calculate application rates required if spraying is necessary, and confirm calculations with supervisor 1.5 Select and prepare equipment for use according to enterprise guidelines, supervisor's directions and manufacturer's specifications 1.6 Identify work health and safety hazards and report safety concerns to the supervisor 1.7 Place caution or hazard signs and signals as required by work instructions and standard operating procedures
2. Apply treatments to plant pests, diseases and disorders	2.1 Wear personal protective equipment according to work health and safety policies and procedures 2.2 Prepare treatments according to supervisor's instructions, safety data sheets or chemical labels and manufacturer's guidelines 2.3 Apply treatments according to work health and safety, environmental and regulatory requirements, to minimise damage to non-target species
3. Carry out post treatment operation	3.1 Clean and store personal protective equipment and application equipment 3.2 Dispose of treatment waste in a way that causes minimal environmental damage or biosecurity risks 3.3 Maintain records according to enterprise guidelines and regulatory requirements 3.4 Monitor response to treatment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPMG202A Treat plant pests, diseases and disorders

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG202 Treat plant pests, diseases and disorders

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare and apply treatments to plant pests, diseases or disorders
- identify and report work health and safety and environmental hazards
- follow work health and safety policies and procedures to treating plant pests, diseases and disorders
- follow instructions to prepare and apply treatments to minimise damage to non-target plant and animal species
- dispose of treatment waste without causing environmental damage
- shut down and clean equipment in a way that minimises environmental impacts
- use, clean and store personal protective equipment and application equipment according to workplace procedures
- maintain records to legislative and workplace standards
- apply biosecurity measures in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental considerations when using chemicals
- equipment capabilities and limitations
- plant pests, diseases and disorders common to host plants in a work area
- equipment required to complete the task
- treatment methods appropriate to the issue and the environment
- caution or hazard signs and signals required when treating plant pests, diseases and disorders
- purpose of, and information provided in chemical labels and safety data sheets

- how to access safety data sheets in own workplace and what information is included in them

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG203 Work effectively in a pest management environment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to interpret and apply industry and organisation procedures, guidelines, policies, ethical standards and sustainability requirements for working in the pest management sector. It requires the ability to identify and follow legislative and procedural requirements and complete daily work activities under routine supervision and within organisational guidelines.

The unit applies to individuals who undertake defined activities under general supervision. They exercise limited autonomy and take some accountability for their own work.

The skills and knowledge described in this unit underpin a broad range of activities applicable to job roles throughout the pest management industry at various levels.

Participants operating in this field may be required to hold current chemical handling certification. Other licensing conditions may also apply to this unit. Specific determination should be sought through your relevant State or Territory.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Demonstrate basic understanding of pest management principles	1.1 Recognise common invasive pests relevant to field of work 1.2 Identify characteristics of specific pest species and their impacts on the community and environment 1.3 Identify pest management plans applicable to area of work 1.4 Apply principles of integrated pest management according to supervisor instructions 1.5 Identify risks associated with presence of pest species in area of work 1.6 Identify own responsibilities and boundaries of own job role in relation to pest management practices
2. Work within industry guidelines, procedures and legislation	2.1 Assist with identifying key stakeholders and contribute to stakeholder engagement and consultation processes 2.2 Apply the following work health and safety practices: use of personal protective equipment and safe chemical handling, where applicable 2.3 Identify environmental, legislative, ethical and organisational requirements relevant to working in the pest management sector 2.4 Identify licenses, permits and permissions required to enter a property for the purpose of pest management activities 2.5 Relate standard operating procedures and Codes of Practice to field of work 2.6 Follow procedures to ensure applicable legislative, licensing and procedural requirements are ethically implemented to required standards
3. Use technology, equipment and tools to carry out work tasks	3.1 Identify and use suitable navigational tools for onsite orientation 3.2 Calibrate or prepare equipment for use 3.3 Use communication devices onsite effectively and correctly to meet communication needs of self and others 3.4 Operate a range of equipment and tools required for work tasks 3.5 Identify equipment faults and take action or tell your supervisor 3.6 Record information and data regarding the pest control program in relevant database or information system according to workplace procedures
4. Prioritise and undertake daily work activities	4.1 Seek clarification from senior officer regarding target area and, where necessary, methods to be used in the pest management program

Element	Performance criteria
	4.2 Identify, prioritise and carry out work tasks within designated timeframes in accordance with work orders 4.3 Identify and select equipment required to carry out pest management program 4.4 Review factors affecting the achievement of work tasks and tell your supervisor 4.5 Dispose of waste material in accordance with organisational procedures and biosecurity practices 4.6 Undertake routine monitoring of pest management area and, as appropriate, discuss any factors that might impact the effectiveness of the program to your supervisor 4.7 Follow work health and safety requirements for all activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG203 Work effectively in a pest management environment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- work in a pest management environment
- apply procedures for the safe use of chemicals, equipment and tools relevant to a pest management treatment plan
- follow safe waste disposal procedures
- use communication, navigational and date recording equipment relevant to field work, including any necessary preparations according to organisational requirements
- assist with identifying key stakeholders and gaining an understanding of their attitudes towards pests, the damage pests cause and issues that may influence pest management
- communication strategies used to engage with supervisor and stakeholders
- apply work health and safety policies and procedures in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- common pest management methods, strategies and monitoring techniques and why they are used for a specific species
- standard operating procedures and codes of practice applicable to own work
- basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice
- invasive pest species common to field of work and their harmful impact on the environment
- the relevant licenses, permits and permissions required to enter a property
- pest signs and the presence of recent pest activity at the site

- risk factors, including human, health and environmental associated with the pest management activity

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG301 Control weeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and coordinate weed control activities.

This unit applies to workers in agriculture, horticulture or land management-based enterprises who are required to carry out the control of weed infestations using cultural, biological and chemical methods to provide effective, economical control of weeds while minimising damage to the environment.

The unit applies to workers who demonstrate autonomy and judgement and take limited responsibility in known contexts.

Individuals operating in this field who use chemicals for weed control are required to hold current chemical handling certification. Other licensing conditions may also apply to this unit. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Assess weed infestation	1.1 Record details of weeds and potential for weeds in target area 1.2 Identify the scope, stage and size of the weed infestation that adversely impacts on the landscape or production 1.3 Determine if plant health or growth or production requirements are compromised by level of infestation 1.4 Identify tolerable levels of infestation according to client, legislation, market, environmental and Integrated Pest Management requirements 1.5 Seek professional advice or conduct research on possible approaches to control of the weed infestation 1.6 Identify non-target plant and animal species present in the area 1.7 Assess the site for access, suitability of control measures, work health and safety and environmental risk
2. Plan control measures	2.1 Determine suitable control options according to Integrated Pest Management principles, legislative requirements and industry practice 2.2 Identify, assess, and control risks to all stakeholders and the environment, including risks to self, the public, non-target plant and animal species 2.3 Identify appropriate tools, equipment machinery and resources for the planned control measure 2.4 Select appropriate personal protective equipment in accordance with work health and safety requirements 2.5 Prepare or select an integrated plan for the control measures or strategies according to Integrated Pest Management principles and environmental sustainability practices 2.6 Prepare documentation for control measures, including work health and safety, safety data sheets, and chemical use according to workplace and legislative requirements
3. Implement weed control	3.1 Assess if conditions are appropriate for control plan to proceed and make any necessary adjustments to the plan 3.2 Implement control measures in accordance with Integrated Pest Management plan and standard industry practice 3.3 Ensure that control measures minimise non-target species and environmental damage 3.4 Maintain records and documentation of the control measures applied
4. Monitor control measures	4.1 Monitor control measures to identify signs of adverse impact on humans, animals, non-target plants or environment 4.2 Assess effectiveness of control measures in accordance with Integrated Pest Management guidelines and available industry

Element	Performance criteria
	standards 4.3 Report assessment of control measures to client or organisation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPMG301A Control weeds.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG301 Control weeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify range of weeds and beneficial organisms in the work area
- plan and coordinate weed control activities
- identify threshold levels or tolerance of weeds
- identify target weeds at different growth stages
- conduct a site hazard identification and risk control assessment for weed control
- prepare, maintain and calibrate equipment
- select and apply weed management methods appropriate to the context
- maintain records of weed management activities
- monitor, record and report the effectiveness of methods
- minimise damage to non-target species and the environment
- apply work health and safety practices in the context of own work
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- suitable weed control measures and timing of weed control activities based on:
 - the lifecycle and ecology of a range of relevant weeds in the area
 - the cyclical nature of weeds and control programs
 - how weeds grow and spread and methods of weed dispersal
 - weed characteristics
 - beneficial organisms in the area
 - new and emerging weed species present in the area
 - how plant health or growth requirements can be compromised by infestation levels

- economic, aesthetic, health, fire hazard and environmental thresholds for a range of weeds, common to the area
- weed control methods and when they should be selected, including prevention strategies
- non-target plants common to the area, especially plants with morphological features similar to the target pest plant
- key concepts of Integrated Pest Management
- risk factors including human, animal health and environmental associated with control measures
- factors that affect the efficacy of weed management
- how to conduct activities in a manner that avoids or minimises disturbance to other plant or animal species
- signs of adverse impact on humans, animals, non-target plants and the environment due to implemented control measures and ways of minimising these adverse effects
- a range of site-monitoring techniques that may be used to implement the weed control plan
- hazard identification and risk assessment methodologies
- types of equipment including personal protective equipment appropriate to the control measure
- work health and safety requirements pertaining to the use of cultural, biological and chemical agents
- relevant parts of the organisation's pest management plan and survey strategy
- legislative requirements relevant to weed control

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG302 Control plant pests, diseases and disorders

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to control plant pests, diseases and disorders, taking into consideration Integrated Pest Management options. The unit describes the skills and knowledge required to identify a range of pests, diseases and disorders and beneficial organisms, assess damage or threat to plants and select and apply pest and disease controls and timing of operations. It includes preparing and calibrating equipment, monitoring the effectiveness of controls and keeping records.

This unit applies to workers in plant-based enterprises or activities working under limited supervision from others with checking only related to overall progress. Workers may require limited organisation and have limited responsibility for the work of others.

Individuals operating in this field are required to hold current chemical handling certification and a first aid certificate. Other licensing conditions may also apply to this unit. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Assess pests and disease infestation	1.1 Assess the scope and size of the infestation 1.2 Identify and report or record plant pests, diseases and disorders, beneficial organisms and hosts 1.3 Determine thresholds of pest infestations tolerated by the client, market or environment from the Integrated Pest Management strategy
2. Plan the implementation of management measures	2.1 Select management measures from Integrated Pest Management strategy suitable for the infestation 2.2 Select management measures to minimise impact on non-target plant or animal species and to meet production or environmental objectives 2.3 Select tools, equipment and machinery for each work activity according to enterprise work procedures 2.4 Identify work health and safety hazards, assess risks and implement risk controls 2.5 Select, use and maintain personal protective equipment according to label or manufacturer instructions 2.6 Select management measures in full consideration of work health and safety and environmental implications and legislation
3. Implement management measures	3.1 Follow work health and safety procedures throughout management activities 3.2 Coordinate enterprise work team, contractors and Integrated Pest Management product suppliers in a sequential, timely and effective manner in consultation with the supervisor 3.3 Implement management measures according to the Integrated Pest Management standards or industry Code of Practice 3.4 Maintain a clean and safe work area throughout and on completion of each activity 3.5 Maintain records as required by legislation and enterprise guidelines
4. Monitor management methods	4.1 Monitor management measures to identify side effects to other plants, animals or external environment 4.2 Assess effectiveness of management methods in reference to specified industry, work health and safety and enterprise standards 4.3 Make adjustments to Integrated Pest Management methods where necessary to meet enterprise specifications

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

Equivalent to AHCPMG302A Control plant pests, diseases and disorders

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG302 Control plant pests, diseases and disorders

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must demonstrate that they can:

- identify pests, diseases and disorders, beneficial organisms and host plants in target area
- assess damage or threat to plants
- select and apply pest and disease management options and determine timing of operations according to pest management plans, to maximise impact on target species and minimise risks to non-target plant and animal species in the area
- prepare and calibrate equipment
- monitor the effectiveness of pest and disease management methods
- keep records of pest and disease management activities to regulatory and enterprise standards
- follow of work health and safety procedures when carrying out pest and disease management activities
- apply appropriate environmental sustainability practices when planning and carrying out work

Knowledge Evidence

The candidate must explain:

- pest, disease and disorder and symptom recognition of host stress
- economic, aesthetic or environmental thresholds for a range of plant pests, diseases and disorders
- chemical, biological and cultural methods and treatments available to the enterprise within the parameters of an Integrated Pest Management program
- range and use of tools, equipment and machinery available to the enterprise for implementing the management measures

- range of site monitoring and analysis techniques that may be used to implement an Integrated Pest Management program
- implications of choice of plant pest and disease methods with site limitations, environmental implications, end market and production or environmental objectives for the site
- basic principles of Integrated Pest Management standards or industry Code of Practice
- work health and safety responsibilities for employees and employers
- correct use, maintenance and storage of personal protective equipment
- work health and safety and environmental legislative requirements including hazardous substances regulations

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PMG304 Use firearms to humanely destroy animals

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to destroy animals humanely using firearms. Shooting is a quick and effective means of humanely destroying animals and in some situations is the only practical method available in the field.

Shooting may be conducted on foot or with various vehicles. Techniques in shooting pest animals will depend on the type of animal that is being shot and whether the shooter is stationary or mobile. This unit is not applicable to using firearms from aircraft.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

Firearms licensing conditions apply to this unit. Specific approval should be sought through the relevant State or Territory Firearms licensing agency.

Appropriate firearms licences and training are also required for those involved in training and assessment against this unit.

Destruction of pest animals must comply with state animal cruelty legislation. In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan for the shooting job	1.1 Map location and boundaries for the shoot in accordance with the pest management plan and monitoring program 1.2 Confirm location of habitats, habits and range of movement of target animal 1.3 Determine timing of the shoot based on the activity patterns of the target animal and estimate time required to complete the shoot 1.4 Identify hazards associated with the shoot 1.5 Identify environmental and personal and public safety risks associated with the shoot 1.6 Identify and use suitable personal protective equipment and warning signs required for the job
2. Prepare for the shooting job	2.1 Confirm anatomy and physical features identifying location of vulnerable organs of target animal 2.2 Take precautions to minimise hazards and environmental risks associated with the shoot 2.3 Select vehicles, equipment and materials intended for use and check for serviceability 2.4 Check firearm licences and permits are applicable to purpose and obtain new license/permit if necessary 2.5 Select firearm and ammunition types to comply with those recommended for the target animal 2.6 Check firearms, ammunition, and stowage for transportation meets licensing requirements 2.7 Check and prepare firearm and ammunition 2.8 Zero and test fire firearm 2.9 Stow firearm for transport making sure it is unloaded and in a safe mode
3. Shoot animals	3.1 Carry firearm safely with muzzle pointing in safe direction at all times 3.2 Load, discharge and unload firearm safely 3.3 Aim firearm at vulnerable site, on the target animal and kill using a single shot 3.4 Check each target animal to ensure it is dead prior to selecting the next target animal where possible 3.5 Destroy target animals that have not been killed cleanly in a

Element	Performance criteria
	humane manner 3.6 Handle carcasses that are required for research or commercial use carefully and in a way to minimise personal health and safety and biosecurity risks 3.7 Dispose of animal carcasses that are not required for research or other purposes according to enterprise procedures to minimise biosecurity or public safety and health risks
4. Clean and store equipment and material	4.1 Clean and store carcasses for research or commercial use 4.2 Clean and store equipment and materials 4.3 Clean, maintain and store firearms 4.4 Store ammunition safely 4.5 Report or record job completion

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCVPT203A Use firearms to humanely destroy animals

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG304 Use firearms to humanely destroy animals

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- operate a firearm safely in accordance with statutory requirements
- zero and test fire the firearm safely at a range under supervision at a distance that is commensurate with the target animals to be destroyed
- stow the firearm safely for transport
- clean, maintain and store firearms safely and in accordance with statutory requirements
- check target animal is dead and euthanase immediately, if necessary, according to relevant animal welfare codes of practice
- use personal protective equipment to handle carcasses to prevent contracting zoonotic diseases
- apply work health and safety policies and procedures at all times
- apply biosecurity measures when handling, transporting or disposing of carcasses
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- how to find the pertinent information in the organisation's pest management plan
- the environmental hazards and risks associated with the shoot
- the safety hazards and risk management strategies associated with the shoot
- how to check and prepare the firearm and ammunition
- how to check a target animal that has been fired on to ensure it is dead
- anatomy and physical features and vulnerable sites, or humane points on target animal
- procedures for the safe handling of carcasses required for research or commercial use

- procedures for the safe disposal of animal carcasses not required for other purposes
- reporting and recording procedures required by the pest management plan
- location and boundaries for the shoot
- habitats, habits and range of movement of target animals
- personal protective equipment required for the shoot
- application of the 1996 National Firearms Agreement to the licensing, storage and use of firearms
- firearm and ammunition types recommended for the target animal
- State and territory gun control laws, acts and regulatory requirements relating to the use of firearms to humanely destroy animals
- the basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice
- prevention of cruelty to animals legislation applicable to destruction of animals
- basic requirements for biosecurity in the context of destruction of animals

Assessment Conditions

Assessment must involve the use of a firearm but can be undertaken using live animals, carcasses or simulated targets. Assessment must be conducted under field conditions. The assessment team must include assessors with firearms licences.

Assessment must comply with Animal Welfare Codes of Practice and Standard Operating Procedures.

Assessor must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG305 Survey pests

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to survey pest abundance by conducting ground counts, aerial counts or both.

Pests may be weeds, vertebrate or invertebrate pests or a combination of these.

Work may be conducted as part of an emergency response to an incursion or as part of routine surveillance. It must be conducted to comply with the organisation's pest management plan, survey strategy and monitoring program and in accordance with established standards and protocols.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to conduct survey	1.1 Access the organisation's pest management plan, survey strategy and monitoring program documents 1.2 Map location and boundaries for the count and obtain required permits 1.3 Work with key stakeholders to develop trust and effective working relationships 1.4 Identify natural areas and features 1.5 Confirm location of habitats and the range of movement of the target pest 1.6 Determine items of direct evidence of the pest to be counted and survey method 1.7 Determine time and duration of the count and notify relevant personnel 1.8 Identify safety hazards and take precautions to minimise risks associated with the selected survey method 1.9 Identify environmental risks and take precautions to minimise risks associated with the count 1.10 Check serviceability of resources required to complete the count
2. Conduct survey and record observations	2.1 Operate equipment appropriately 2.2 Conduct count within boundaries of specified location 2.3 Record observations of direct evidence of the target pest and report to supervisor 2.4 Clean and store equipment and materials 2.5 Apply animal welfare policies and procedures when conducting survey

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit replaces and is not equivalent to AHCVPT303A Survey pest animals

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG305 Survey pests

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- organise and complete a pest survey according to the organisation's pest management plan and survey strategy
- recognise signs or evidence of common pest
- count, add and record observations
- operate equipment safely and in accordance with organisation workplace procedures
- clean and store the equipment at the conclusion of the job
- take appropriate safety precautions for all pest survey activities
- apply appropriate animal welfare practices in the context of own work
- use appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- survey techniques appropriate to the geography and type of pest being surveyed
- precautions to be taken when aerial observation is employed as a survey method
- the basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice
- relevant parts of the organisation's pest management plan and survey strategy
- survey techniques that may be used
- the types of permits that may be required
- range of pest species in pest survey plan
- pest behaviour and habitats including areas that have a high probability of infestation
- direct evidence of range of pests included in pest management plan

Assessment Conditions

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG306 Determine pest control techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to select a pest control technique for a strategic approach to pest management.

Pests may be weeds, vertebrate or invertebrate pests or a combination of these.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and provide and communicate solutions to a range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess targeted pest	1.1 Identify the target pest, pest biology and lifecycles 1.2 Confirm the location and extent of the pest problem 1.3 Confirm target pest behaviour and movement patterns 1.4 Assess the impact of the pest on assets
2. Assess techniques	2.1 Identify purpose of control program and determine desired outcomes 2.2 Discuss with supervisor suitability of eradication, containment, reduction or a combination of these techniques, and to what degree control is required 2.3 Identify biosecurity risks associated with control methods 2.4 Determine legislative, economic or social constraints on pest control techniques 2.5 Identify non-target species and any constraints that they may impose 2.6 Determine whether urban areas are involved and their impact on the planning of control techniques
3. Plan the control	3.1 Source information on a variety of techniques applicable to the type of pest 3.2 Identify necessary permits, licenses or clearances required to carry out pest control activities 3.3 Assess the relative humaneness of pest control techniques, where target pests include animals 3.4 Determine control measures to address identified constraints 3.5 Identify safety hazards associated with control measures and apply relevant work health and safety policies and procedures to manage risks 3.6 Discuss techniques with supervisor to determine which technique, or combination of techniques, would best suit the situation to obtain the desired outcome, while minimising the risk to non-target species, in particular spray drift 3.7 Determine monitoring techniques to be used

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG306 Determine pest control techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess the impact of pests on assets
- identify the target pest
- determine the desired outcomes of pest control
- plan appropriate control techniques
- use a variety of monitoring techniques to determine pest numbers
- identify non-target species that may be at risk during a control program
- follow work health and safety policies and procedures when applying pest control techniques
- awareness of biosecurity in the context of own work
- use appropriate animal welfare practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- pest lifecycles and behaviours, including modes of dispersal, biology and reproduction
- the features of target and non-target species
- habitats of target and non-target pest animals
- impacts pest control activities can have on native species
- licenses, permits and clearances that may need to be obtained
- the impact nearby urban areas may have on pest control
- the impact pest control can have on nearby urban areas
- pest control techniques that may be appropriate for the context of work

- key conditions for the survival of pests and methods for eliminating or controlling those conditions
- basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice, where target pests are vertebrate animals
- how pests can impact assets, including environmental impacts
- what the acceptable limits are in relation to pest numbers
- the types of constraints that apply to pest control techniques
- how legislation regarding declared species applies to pest control

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG307 Apply animal trapping techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to trap and hold live animals and release or humanely destroy. Animals may be native animals, domestic animals, animals determined to be pests or feral animals.

Trapping techniques call for the use of a variety of equipment and may include the use of lures or baits.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

Some forms of traps are strictly regulated in some States and Territories in Australia. Specific determination should be sought through the relevant State or Territory authority.

Firearms may be required if trapped animals are to be killed. If this is appropriate, firearm licensing conditions will apply and specific determination should be sought through the relevant State or Territory.

Appropriate firearms licences may also be required for those involved in training and assessment against this unit.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for trapping	1.1 Identify purpose of animal capture and set objectives 1.2 Confirm the location and size of the area designated for trapping activities 1.3 Confirm target animal movement patterns, behaviour and lifecycles to determine trapping location and placement of equipment and appropriate timing of trapping activity 1.4 Identify potential non-target animals 1.5 Estimate time required to complete trapping 1.6 Identify and check vehicles, materials and equipment required for trapping 1.7 Select appropriate traps for target animal and the environment 1.8 Clean, maintain and prepare trapping equipment 1.9 Identify hazards associated with trapping and select appropriate personal protective equipment 1.10 Identify and manage environmental risks associated with trapping animals 1.11 Obtain relevant permissions to enter property 1.12 Determine precautions for minimising trapping of non-target animals
2. Place and set traps	2.1 Undertake site surveillance prior to setting traps 2.2 Select and prepare site to maximise opportunity for trapping target animals and minimise the chance of trapping non-target animals 2.3 Position, set and calibrate trapping equipment and check it for strength and security 2.4 Apply lures, decoys, baits or toxins as necessary 2.5 Camouflage traps as required 2.6 Apply precautions to prevent trapping of non-target animals 2.7 Set traps in accordance with legislative requirements and animal welfare codes of practice
3. Check and remove traps	3.1 Inspect traps at the required frequency 3.2 Identify trapped animals then release, humanely destroy or

Element	Performance criteria
	prepare for transport as required 3.3 Handle captured animals humanely and in accordance with animal welfare codes of practice 3.4 Transport animals from site, when required, in a safe and appropriate manner 3.5 Observe work health and safety procedures and public safety requirements prior to and during trapping activities 3.6 Release trap mechanism safely and remove trap 3.7 Restore trap-site to its prior condition
4. Record data	4.1 Use Global Positioning System (GPS) loggers 4.2 Use appropriate data sheets or other recording instruments to record details of trap sets and lures as well as target and non-target capture
5. Clean and store equipment and material	5.1 Clean and store carcasses for research or other purposes 5.2 Clean and store equipment and materials to workplace standards to minimise biosecurity risks 5.3 Record target and non-target kills
6. Report completion of work	6.1 Report results of trapping activities, including any incidents with animals

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCVPT306A Apply animal trapping techniques

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG307 Apply animal trapping techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- humanely trap animals and release or destroy the animals as required, following Standard Operating Procedures
- identify target and non-target animals present in area
- check vehicles, equipment and materials for serviceability and clean equipment before starting and on completing the job
- select and prepare the trapping site and restore it on completion of the job
- position, set, calibrating and regularly checking trapping equipment
- apply lures or baits, if required
- select, use and store baits or toxins according to workplace procedures
- handle and euthanase captured animals in accordance with animal welfare guidelines
- summarise and present trapping data to supervisor
- clean and store equipment and carcasses using approved chemicals in accordance with Safety Data Sheets and enterprise procedures to minimise biosecurity risks to other animals
- apply work health and safety practices in the context of own work
- apply appropriate environmental sustainability practices in the context of own work
- apply appropriate animal welfare practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice
- the purpose for trapping the animal

- the target animal's range, movement patterns and behaviour and how to apply knowledge of these to selecting trapping location and equipment
- the reproductive cycle of the target animal to determine appropriate timing of trapping activities
- food preferences, both general and local, of target animals
- capture and kill points for target animals
- permissions that may be required to undertake trapping
- principles relating to property, stock and duty of care
- precautions that need to be taken to minimise trapping of non-target animals
- how to camouflage traps
- how to safely set off traps to render them inactive
- work health and safety procedures that relate to trapping animals
- recording and reporting requirements
- how to use decoys and lures
- how to prepare baits or toxins
- applicable State or Territory legislation on the use and storage of baits or toxins
- applicable legislation on the capture and handling of animals
- suitable traps and techniques for the target animal
- target animals and non-target native animals also found in the area
- suitable personal protective equipment
- transportation methods for captured animals

Assessment Conditions

Assessment must be conducted in a real work environment, under work conditions, setting traps for live animals.

If firearms are used to destroy animals then the assessment team must hold firearms licences.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC PMG308 Implement pest management strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist in the implementation of a pest management plan.

Pests may be weeds, vertebrate or invertebrate pests or a combination of these.

This unit applies to individuals who work under broad direction and take responsibility for their own work, including limited responsibility for the direction of others. They use discretion and judgement in the selection and use of available resources and provide and communicate solutions to a range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare for implementation	1.1 Identify and read the pest management plan and discuss requirements with supervisor 1.2 Identify legislative requirements appropriate to the plan and determine whether declared species are involved 1.3 Identify the basic concepts of the organisation's pest management plan and how these impact the plan 1.4 Identify key stakeholders and their attitudes towards pest management plan 1.5 Select and prepare vehicles suitable to the activity 1.6 Select and prepare required materials, tools, machinery and equipment 1.7 Follow work health and safety policies and procedures 1.8 Use and maintain appropriate personal protective equipment 1.9 Identify budgetary or financial constraints for implementing the plan and tailor activities appropriately
2. Assess targeted pest	2.1 Identify the targeted pest and determine pest characteristics, including movement paths, habitat use and recolonisation ability 2.2 Identify pest management control method, or combination of methods to be used 2.3 Identify pest status in the context of location, land use, legislative requirements, benefits and damage caused 2.4 Assess target area terrain and hazards and environmental risks associated with implementing the plan, including the potential for the plan to clash with local land management practices
3. Implement the plan	3.1 Use safeguards to ensure that the target pest is controlled and all other species remain unharmed 3.2 Assess and control environmental impacts and use biosecurity and sustainability principles outlined in the plan 3.3 Use appropriate application processes or techniques for long term outcomes 3.4 Apply applicable Federal and State legislation relating to animal welfare, property, stock and duty of care 3.5 Identify relevant monitoring techniques and adapt them to obtain the data necessary to assess the effectiveness of the plan 3.6 Use follow-up techniques, where required, to minimise possibility of reinfestation
4. Complete activities	4.1 Dispose of carcasses or weeds according to enterprise procedures and legislative requirements 4.2 Review outcomes and discuss with supervisor to determine whether there were any obvious failures in implementing the plan 4.3 Complete required documentation and make recommendations to

Element	Performance criteria
	supervisor on issues or improvements 4.4 Clean, store and maintain equipment, tools and machinery

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG308 Implement pest management strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out the implementation of the plan to organisational standards and in accordance with relevant legislative requirements
- apply the appropriate techniques to achieve long term outcomes
- assist with the identification of key stakeholders
- apply standard monitoring techniques
- follow work health and safety policies and procedures
- apply biosecurity measures in the context of own work
- apply appropriate animal welfare practices in the context of own work
- use appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- appropriate legislative requirements with regards to declared species
- basic sustainability principles, including the ecological role provided by some pests
- Federal and State legislation relating to property, animal welfare and duty of care
- risk management approaches
- stakeholder engagement and consultation strategies
- pest characteristics and how they influence pest management, particularly with regard to pest populations and the ability of pests to rapidly recolonise
- pest management control methods and techniques and how they fit into an integrated strategy
- standard monitoring techniques

- pest status in the context of location, land use, benefits and damage caused
- types of follow up techniques that may be required to minimise the possibility of reinfestation
- information sources used for identifying and managing pests
- animal welfare requirements, if implementing vertebrate pest controls
- relevant legislation regarding the destruction, movement and propagation of a declared species
- concepts of the strategic approach to Integrated Pest Management
- biosecurity principles, including prevention of pest spread
- requirements for ensuring the welfare of animals described in the relevant Codes of Practice

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG309 Apply pest animal control techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to apply control techniques for pest animals, in compliance with a pest management plan.

Control techniques may involve the use of vertebrate pesticides, traps, cages, lures and firearms with the animal humanely destroyed in accordance with industry guidelines or protocols.

This unit applies to individuals who work within a pest management program, under broad direction and take responsibility for their own work.

Some forms of traps are strictly regulated in some States and Territories in Australia. Specific determination should be sought through the relevant State or Territory authority.

Firearm licensing conditions will apply if firearms are used for the destruction of animals. Specific determination should be sought through the relevant State or Territory. In this case, appropriate firearms licences are also required for those involved in training and assessment of this unit.

Pest animal control techniques must comply with state animal cruelty legislation. In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for control	1.1 Identify control techniques to be used in the pest management plan 1.2 Identify and minimise risks associated with the control technique and apply appropriate precautions including personal protective equipment 1.3 Identify hazards and minimise risks that could adversely impact on the environment including public health during the control, and apply appropriate precautions 1.4 Select and check materials, equipment and vehicles required 1.5 Clean, calibrate and prepare equipment 1.6 Identify environmental and welfare risks associated with animals and determine precautions to minimise these risks. 1.7 Obtain relevant permissions to enter property and follow appropriate notification plan for all stakeholders 1.8 Prepare timeline for pest control operation according to industry best practise or protocols
2. Implement control	2.1 Identify target animal sign 2.2 Select site to maximise impact of control methods on target animals and minimise the impact on non-target animals. 2.3 Confirm predetermined control technique is appropriate for target pest, site, current conditions and timing of control 2.4 Follow work health and safety procedures for carrying out control activities 2.5 Place required signage and apply required notifications 2.6 Follow control timelines for control technique 2.7 Apply precautions to prevent injury or harm to humans and non-target animals 2.8 Use appropriate data sheets or other recording instruments to record details 2.9 Inspect site at the required times and frequency relevant for local conditions 2.10 Humanely destroy animals using firearms, where necessary

Element	Performance criteria
3. Complete the control work	3.1 Ensure all equipment, baited or destroyed animals and unused baits are removed and accounted for 3.2 Restore site to its prior condition 3.3 Clean, maintain and store equipment and materials 3.4 Report results of control activities, including any incidents with non-target animals

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG309 Apply pest animal control techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify target and non-target animals
- check vehicles, select appropriate equipment and materials for serviceability and clean equipment before starting and on completing the job
- select and prepare the control site and restore it on completion of the job
- position, set, calibrate and regularly check equipment
- if firearms are required, select appropriateness of firearm and calibre and check its accuracy
- identify lures or baits that may be required
- prepare baits and poisons as required
- identify appropriate location for controls
- account for all, and remove controls within specified timeframes
- record details of control activities to comply with enterprise and legislative requirements
- summarise and present control data to supervisor
- comply with all relevant legislative requirements
- apply work health and safety practices in the context of own work
- apply appropriate animal welfare and environmental best practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- requirements for ensuring the welfare of animals described in the relevant Codes of Practice and Standard Operating Procedures
- the purpose and scope of the animal control program
- suitable control techniques and timing of control activities based on:

- the target animal's range, movement patterns, behaviour and habitats
- the reproductive cycle of the target animal
- target animal behaviours and biology relevant to control technique
- food preferences, both general and local, of target animals
- scent station and other animal tracks and traces
- target pests and non-target native animals found in the area
- the environment and terrain of the target area
- appropriate calibre of firearm required to humanely destroy target animals
- humane destruction procedures, including capture and kill points for target animals
- permissions and protocols that may be required
- precautions that need to be taken to minimise harm to non-target animals
- work health and safety procedures that relate to animal control activities
- recording and reporting requirements
- procedures for use and recording of baits and poisons, if used
- application of relevant legislation to pest animal control activities
- suitable personal protective equipment
- transportation methods for captured animals, where this forms part of the control activities

Assessment Conditions

If firearms are used to destroy animals then the assessment team must hold firearms licences.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG310 Prepare, monitor and maintain biological agents

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare, monitor and maintain biological control agents for weed control prior to release in an experimental or field situation. Biological agents must be maintained and stored in an effective way to optimise its potency on targeted weed species.

All work is carried out to comply with the organisation's pest management plan.

The unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare and propagate	1.1 Identify, select and access bioagent media to suit the host and

Element	Performance criteria
bioagent media	target 1.2 Prepare required media 1.3 Apply laboratory policies and procedures for work health and safety, environmental sustainability and biosecurity
2. Obtain bioagent cultures	2.1 Procure cultures from established sources and maintain microclimate in transport to the laboratory 2.2 Transfer cultures to growing environment 2.3 Apply laboratory policies and procedures for work health and safety, environmental sustainability and biosecurity
3. Maintain and monitor cultures	3.1 Check cultures regularly 3.2 Maintain optimum environmental conditions to maximise culture growth and condition 3.3 Record observations and report abnormalities to the appropriate authority 3.4 Apply laboratory policies and procedures for work health and safety, environmental sustainability and biosecurity
4. Harvest and store cultures	4.1 Use routine monitoring of culture growth to identify the need for harvest and agent release 4.2 Determine harvesting program in line with program requirements 4.3 Complete harvest operations and transfer cultures to storage 4.4 Apply laboratory policies and procedures for work health and safety, environmental sustainability and biosecurity

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit has resulted from the merging of AHCPMG303A Maintain biological cultures and AHCPMG405A Implement pest management action plans and is not equivalent to either of these units.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG310 Prepare, monitor and maintain biological agents

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare and propagate biological agents according to laboratory policies and procedures
- transfer cultures to growing environment according to laboratory policies and procedures
- harvest and store biological agents according to laboratory policies and procedures
- monitor and keep records of observations and details of any abnormalities according to laboratory policies and procedures
- apply work health and safety policies and procedures in the context of own work
- apply appropriate sustainability and biosecurity practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- laboratory procedures
- the range of media available for culture maintenance
- culture and media preparation techniques
- available biological control agents and their use
- the range of pest species that are to be targeted with biological agents
- biosecurity and quarantine requirements

Assessment Conditions

Candidates must have access to bioagent media and cultures, appropriate equipment and resources for the purpose of assessment.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG311 Use firearms for pest control activities from aircraft

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to conduct pest control activities from the air using firearms.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with the relevant statutory requirements.

Workers operating in this field are required to hold a first aid certificate. Other licensing conditions may also apply to this unit. Specific determination should be sought through the relevant State or Territory.

Firearms licensing conditions apply to this unit. Specific determination should be sought through the relevant State or Territory agency.

Appropriate firearms licences are also required for those involved in training and assessment against this unit.

Approval to carry and discharge firearms from aircraft must be gained from the Civil Aviation Safety Authority (CASA). The holder of an Air Operator's Certificate is responsible for gaining this approval and personnel involved must ensure such an approval is issued and comply with any conditions specified in the approval documentation.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Undertake pre-flight procedures	1.1 Confirm location and boundaries for the activities with pilot 1.2 Obtain appropriate approvals and permits to conduct pest control activity 1.3 Comply with conditions of CASA approval 1.4 Check time and duration of flight and notify relevant personnel 1.5 Confirm flight plans and search and rescue operations with the pilot and ground crew 1.6 Check on-board emergency equipment with pilot 1.7 Check emergency landing procedures with pilot 1.8 Check landing-site requirements 1.9 Confirm intent to approach or leave the aircraft with pilot 1.10 Approach aircraft in the recommended safe manner 1.11 Check functioning of firearms including sighting in
2. Conduct activities from aircraft	2.1 Stow equipment safely on aircraft 2.2 Wear harnesses and helmet, as required, during pest control activities 2.3 Plot route and location of activities accurately on property, local or regional map 2.4 Carry out pest control activity according to legislative requirements, enterprise procedures and pilot or supervisor instructions, if applicable 2.5 Ensure animal is humanely destroyed 2.6 Observe and record pest numbers if applicable
3. Complete work	3.1 Clean and store equipment and materials 3.2 Dispose of waste and debris 3.3 Document and report activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCVPT304A Conduct vertebrate pest activities from aircraft

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG311 Use firearms for pest control activities from aircraft

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- safely use firearms to shoot targets from a platform, then from an aircraft at animals
- apply air safety principles
- safely store firearms in an aircraft
- shoot pest animals humanely
- apply work health and safety practices
- ensure all animals are humanely destroyed according to Animal Welfare Codes of Practice and Standard Operating Procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- requirements for ensuring the welfare of animals described in the relevant Codes of Practice relating to the activity being undertaken
- how to read maps and plot locations
- air safety principles and emergency procedures appropriate to firearms
- approvals required for carrying firearms airside
- relevant work health and safety procedures as set out in the organisation's workplace procedures
- relevant environmental, animal welfare prevention of cruelty to animals, and pest control legislation
- appropriate personal protective equipment for role

Assessment Conditions

Assessment must comply with Animal Welfare Codes of Practice and Standard Operating Procedures.

The assessment team must include assessors with firearms licences and appropriate experience in using firearms from aircraft for pest control.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG409 Implement a pest management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement pest management plans.

Pests may be weeds, vertebrate or invertebrate pests or a combination of these.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgment in the selection, allocation and use of available resources.

Individuals operating in this field may be required to hold current chemical handling certification and a first aid certificate. Other licensing conditions may also apply to this unit. Specific determination should be sought through the relevant State or Territory.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and allocate resources for the pest management plan	1.1 Consult with management on the prepared pest management plan and discuss timelines, milestones and objectives 1.2 Conduct a site inspection 1.3 Consult with stakeholders and discuss the pest management plan with a view to gaining cooperation from all involved and provide advice on pest management activities 1.4 Identify budgetary restraints and allocated resources 1.5 Identify human health and environmental and biosecurity risks 1.6 Allocate personnel with relevant skills and competency to complete required activities 1.7 Apply relevant work health and safety standards, other Federal, State/Territory and local legislation and regulations relevant to the allocation and procurement of human and physical resources 1.8 Procure machinery, equipment, tools and materials identified in the plan
2. Brief personnel on pest management plan activities	2.1 Inform personnel of the requirements of the pest management plan 2.2 Inform personnel of land owner or manager expectations and reporting and recording requirements 2.3 Advise personnel of work health and safety standards and other statutory and regulatory requirements to be applied when carrying out required activities
3. Implement the pest management plan	3.1 Check machinery, equipment, tools and materials for serviceability 3.2 Check personal protective equipment and clothing used or worn by personnel for compliance 3.3 Manage the pest control techniques used 3.4 Monitor procedures and skills applied by personnel for compliance with work health and safety standards, animal welfare guidelines if required, chemical use if required, and environmental sustainability guidelines 3.5 Provide feedback, advice and coaching to personnel, as required, to improve or correct processes and skills
4. Coordinate contingency management activities	4.1 Reschedule activities that are not carried out due to accident, injuries, other incident or unfavourable conditions within the monthly, weekly or daily work plans 4.2 Notify personnel, management and other relevant stakeholders of

Element	Performance criteria
	changes to the schedule
5. Report progress in relation to pest management plan	5.1 Assess reports and records supplied by personnel to determine whether progress is in line with the pest management plan 5.2 Document and compile reports and records 5.3 Provide regular progress reports to management and other relevant stakeholders

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit has resulted from the merging of AHCVP302A Implement vertebrate pest control program and AHCPMG405A Implement pest management action plans and is not equivalent to either of these units.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG409 Implement a pest management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must demonstrate they can use a range of control techniques. At least one control technique demonstrated must include the use of a vertebrate poison.

The candidate must provide evidence that they can:

- manage the implementation of a pest management plan
- supervise others to meet work health and safety, statutory and regulatory requirements in their work
- check machinery, equipment tools and materials to manufacturer and statutory requirements
- implement monitoring procedures
- communicate with stakeholders and provide advice on pest management activities
- conduct a site inspection
- instruct and supervise others to carry out pest management work according to the pest management plan
- identify and support workers who need extra training, coaching or feedback to meet safety, environmental and organisational standards when undertaking pest management work
- provide clear instructions and explanations to workers to ensure work meets organisational standards
- manage costs of pest management plan to meet budget requirements
- manage work health and safety risks according to policies and procedures
- apply biosecurity measures in the context of own work
- monitor the application of animal welfare practices
- monitor the application of appropriate sustainability practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the application of the organisation's Integrated Pest Management strategy in the target area
- factors affecting the selection of pest control methods and techniques, including:
 - pest biology and lifecycle
 - potential diseases and toxicity
 - principles of sustainability
 - herbicide resistance and the alternatives that are available
 - pest status in the context of location, land use, benefits and damage caused
- contingency management principles
- risk assessment and management processes
- pest management control programs and how to use them in an integrated manner
- the legal responsibilities of a landholder
- relevant local, regional, State and national pest management strategies
- Federal, State or Territory legislation and regulations relating to pest management activities
- key concepts in the Integrated Pest Management strategy
- in broad terms, the concepts and underpinning principles of the strategic approach to invasive pest management and how to manage damage caused by pests
- in broad terms, the importance of monitoring and evaluating the effectiveness of invasive pest management and how to plan and implement an appropriate monitoring program for a pest management plan
- common causes of failure in pest management
- requirements for ensuring the welfare of animals described in the relevant Codes of Practice
- relevant environmental and pesticides legislation as they apply to the workplace

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG410 Implement the pest monitoring and evaluation plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement the pest monitoring plan and evaluate and report on performance of pest management.

Pests may be weeds, vertebrate or invertebrate pests or a combination of these.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PM)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Obtain and collate all	1.1 Determine the objectives of the pest monitoring and evaluation

Element	Performance criteria
available data	plan 1.2 Collate data on pest numbers, economic and environmental impacts of pests and pest management plan operating costs 1.3 Consult with stakeholders about the pest management plan 1.4 Identify pest signs and confirm if there is presence of recent pest activity around the site 1.5 Identify signs of previous control activity
2. Monitor the pest management plan	2.1 Determine monitoring points in the monitoring plan 2.2 Measure response to the control procedures used 2.3 Confirm that work health and safety requirements are being followed 2.4 Confirm that environmental requirements are being followed 2.5 Record any corrective actions required, processes used and outcomes achieved and report to management
3. Evaluate data against objectives and performance criteria	3.1 Compare data with objectives and performance criteria in the monitoring plan 3.2 Compare costs with budget 3.3 Document costs and benefits
4. Compile a report of the evaluation	4.1 Isolate and examine indicators of good and poor performance 4.2 Use clearly stated conclusions, supported by data, in relation to changes in pest abundance and impacts 4.3 Compile a report that includes discussion of data analysis results
5. Recommend modifications	5.1 Make recommendations to modify or eliminate causes of poor performance or to enhance current performance 5.2 Make recommendations to reduce impacts on land management and production processes 5.3 Provide recommendations to management in the required format

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit has resulted from the merging of AHCPMG407A Monitor and evaluate the local pest management action plan, AHCPMG408A Assess and monitor weed, pest and/or disease control programs and AHCPMG505A Evaluate the pest management strategy and is not equivalent to any of these units.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG410 Implement the pest monitoring and evaluation plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- implement a pest monitoring and evaluation plan to organisational requirements
- collate data as required in the pest monitoring and evaluation plan
- conduct a site inspection
- consult with stakeholders about the plan
- measure responses to the organisation's pest control procedures
- analyse data against objectives and performance criteria
- produce a report on the results of monitoring operations and a report with evaluation results
- apply all monitoring techniques stipulated in the monitoring and evaluation plan
- apply work health and safety policies and procedures in all monitoring activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- how to compare data with objectives and performance criteria
- how to compare actual costs with budgeted costs
- environmental and economic impacts of pests on land management and production processes
- the organisation's pest management plan
- monitoring and evaluation principles and how they work in the pest management plan
- land management and production purposes
- range of pests identified in the pest management plan, their lifecycles, threshold levels and the effects of control methods upon them

- relevant local, regional, State or Territory and national pest management strategies
- Federal, State or Territory legislation and regulations relating to pest management activities
- principles of integrated pest management

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG411 Ensure compliance with pest legislation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify and investigate non-compliances with pest legislation and act on non-compliance issues.

Pests may be weeds, vertebrate or invertebrate pests or a combination of all three.

This unit applies to individuals who take responsibility for their own work. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify non-compliance with legislation	1.1 Identify non-compliance through complaint or other means, and record 1.2 Notify senior staff of non-compliance

Element	Performance criteria
2. Investigate non-compliance	2.1 Determine land ownership or identity of stakeholder and confirm responsibilities of all parties 2.2 Obtain further information on possible non-compliance with legislation 2.3 Contact stakeholder to notify them of breach and provide advice on how to fulfil requirements for compliance 2.4 Provide stakeholder with estimates for pest control work 2.5 Adhere to policies of right of entry when communicating with stakeholders 2.6 Maintain accurate records
3. Act on non-compliance issues	3.1 Issue relevant notices 3.2 Collect evidence and report findings 3.3 Provide advice to the stakeholder that is consistent with legislative requirements 3.4 Provide support to stakeholders in the implementation of programs

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK404A Ensure compliance with pest legislation.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG411 Ensure compliance with pest legislation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed meeting with a stakeholder. All work must be carried out in accordance with relevant Federal, State or Territory legislation regarding pest management activities and the destruction and movement of declared pests.

The candidate must provide evidence that they can:

- identify a non-compliance issue
- provide advice to stakeholders of a non-compliance issue according to authority guidelines and in a manner and language appropriate to the situation
- provide advice and support to stakeholder to manage the issue in accordance with authority guidelines
- follow right of entry requirements
- investigate and collect evidence of breaches
- report findings of non-compliance and compliance according to legislative requirements
- issue relevant notices
- complete recording and reporting requirements to authority and workplace standards

Knowledge Evidence

The candidate must demonstrate a knowledge of:

- relevant Federal, State, Territory and local government legislation regarding pest management and the destruction and movement of declared species
- the legislative status of particular pests and how to identify whether a pest is a declared species

- the types of breaches that generally occur in the locality and the appropriate control options
- conflict avoidance and resolution techniques
- property owners' rights
- delegations under the relevant Acts and Certificates of Authority
- control measures appropriate to the pests and environment in the area

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG412 Develop a pest management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a pest management plan. It covers the process of identifying the activities required to meet the objectives of the organisation and the coordination of human and physical resources in order to achieve those objectives.

Pests may be weeds, vertebrate or invertebrate pests or a combination of these. The pest problem may be in a local or broader regional area.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine goals of the plan	1.1 Determine scope of the plan 1.2 Conduct and document consultation with stakeholders to determine goals 1.3 Determine realistic time periods to allow for the achievement of plan
2. Set specific objectives for the pest management plan	2.1 Define and document objectives to be achieved in consultation with stakeholders 2.2 Define roles and responsibilities of stakeholders in delivering objectives
3. Identify activities required to achieve specific objectives	3.1 Determine and document activities required to achieve objectives by proposed deadlines in consultation with stakeholders 3.2 Select and schedule activities according to critical control points in the target pests' life cycle and the land management and production activity cycles in accordance with Animal Welfare Codes of Practice 3.3 Conduct risk management for community, environment, production and work health and safety 3.4 Develop contingency plans for identified risks and external influences 3.5 Determine monitoring methods and procedures 3.6 Determine control methods relevant to the plan 3.7 Identify site clean-up requirements 3.8 Identify biosecurity issues and prepare contingency plans
4. Estimate resources required to complete required activities	4.1 Determine human and physical resources required for plan 4.2 Estimate cost of plan
5. Finalise plan	5.1 Prioritise activities in plan 5.2 Document and present plan to stakeholders for approval

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG412 Develop a pest management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a pest management plan that is guided by local, State or Territory and Federal strategies and the defined pest problem, in consultation with stakeholders
- scope geographical area, landscape and land uses within area and stakeholders
- develop specific, measurable, achievable, realistic and time-based objectives
- estimate costs of pest management methods appropriate to the defined pest problem
- prioritise activities according to budgetary constraints
- incorporate work health and safety policies and procedures into pest management plan
- apply appropriate biosecurity measures to the plan
- address animal welfare practices in the plan
- apply appropriate sustainability practices in the plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- project planning and management processes
- how to identify activities required to achieve specific objectives
- factors that impact on selection of pest management activities, including:
 - pest behaviour
 - pest population dynamics and economic and environmental thresholds
 - target pest biology and lifecycles
 - potential diseases or toxicity risks
 - relevant local, regional, State or Territory and national pest management strategies
 - the principles that underpin the strategic approach to managing pests

- land management and production processes of targeted area
- Federal, State or Territory legislation and regulations relating to pest management activities
- chemical, biological, physical and habitat control techniques for pest management
- pest control methods and techniques
- requirements for ensuring the welfare of animals described in the relevant Codes of Practice

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG413 Define the pest problem

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required apply a strategic pest management approach to define a pest problem.

Pests may be weeds, vertebrate or invertebrate pests or a combination of all three. The pest problem may be in a local or broader regional area.

This unit applies to individuals who take personal responsibility for their own work. They exercise autonomy in undertaking complex work and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Establish the background to the target pest problem	1.1 Determine landscape and land use within target area 1.2 Establish appropriate consultation with stakeholders in affected area to identify and record their knowledge, concerns and constraints, as part of a program to underpin the planning for the management of the target pest 1.3 Identify desired environmental management and production outcomes 1.4 Collect and record information about management or production processes that relate to the pest problem 1.5 Identify non-target species populations in target area
2. Analyse the target pest problem in the area	2.1 Establish and document the stakeholder's understanding of the distribution of the target pest within the affected area 2.2 Confirm target pest population, damage, and distribution data obtained from stakeholders, through analysis of other sources of information 2.3 Identify factors, particularly environmental and pest biology, which may influence the target pest population and distribution within the area 2.4 Document the target pest lifecycle, identifying optimum times, locations and behaviours that may impact on the effectiveness of the management program 2.5 Identify non-target species populations and distribution in the area 2.6 Identify risks and benefits to non-target species, environmental, local ecology and production that may be at risk due to the impact of the pest or pest control activities, including possible steps within the management program to minimise or eliminate any adverse impacts on these species 2.7 Identify potential ecological role of target pest in area 2.8 Define potential risks relating to exotic disease or toxicity
3. Determine critical control points for management of the target pest problem	3.1 Identify periods of greatest risk as a result of the impact of the target pest or the proposed management program 3.2 Identify periods of significant vulnerability during target pest lifecycle 3.3 Determine appropriate time period for pest management activity
4. Define and document the impacts of the target pest	4.1 Estimate economic losses and environmental impacts of the pest presence 4.2 Conduct a cost-benefit analysis of managing pest 4.3 Prepare a report on outcomes of investigation for stakeholders 4.4 Determine whether the pest problem warrants the need for a pest management plan

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit has resulted from the merging of AHCPMG401A Define the pest problem in a local area and AHCPMG502A Define the pest problem in a regional or broader context and is not equivalent to either of these units.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG413 Define the pest problem

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- produce a written report that details the pest problem in a defined area
- identify relevant stakeholders
- define the pest problem in consultation with stakeholders
- determine the target pest population and distribution and factors impacting population and distribution
- determine non-target species populations and distribution in area
- identify appropriate times for pest control activities
- undertake cost-benefit analysis of pest management
- conduct site inspections and consult with relevant stakeholders
- apply animal welfare considerations to assessment of pest problem
- identify environmental impacts of pest presence and pest management activity

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the environment, particularly relevant land use, land management and production processes
- behaviour of target pests, particularly those behaviours that impact pest susceptibility to being effectively managed
- Animal Welfare Codes of Practice and Standard Operating Procedures
- pest biology and lifecycles of target pests
- land management and production processes of targeted area
- ecology of targeted area

- economic and environmental thresholds relevant to proposed management approaches
- performance criteria for measuring land management and production outcomes
- techniques used to validate the target pest population and distribution data supplied by stakeholders and how to obtain other relevant data
- how to measure or estimate economic losses and environmental impacts resulting from pest presence
- potential ecological role some pests provide
- potential disease or toxicity risks
- relevant parts of local, regional, State or Territory and national pest management strategies
- target pest biology and lifecycles
- principles that underpin the strategic approach to managing pests
- Federal, State or Territory legislation regulations relating to environmental management, private and public property, stock and duty of care
- factors that influence pest population and distribution
- periods of vulnerability in the lifecycle of pests
- critical control points for management of pest problem
- range of pests, non-target species, plant pests and diseases relevant to the targeted area

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG414 Apply predator trapping techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to effectively use leg hold traps to capture predator species, to release the animal unharmed as part of research programs or to humanely euthanase in accordance with pest management programs.

This unit primarily deals with the use of leg or foothold traps to capture predator pest species including dogs, foxes and cats. Animals may be native animals, domestic animals, animals determined to be pests or feral animals. Trapping techniques call for the use of a variety of equipment and may include the use of lures or attractants baits.

Trapping must be carried out in accordance with an approved pest management plan or research project plan.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

Some forms of traps are strictly regulated in some States and Territories in Australia. Specific determination should be sought through the relevant State or Territory authority.

Where feral animals are trapped they may need to be euthanased with a firearm. Firearms licensing conditions apply to this unit, in particular the use of either Cat A, B or C firearms. Specific approval should be sought through the relevant State or Territory Firearms licensing agency.

Appropriate firearms licences and training are also required for those involved in training and assessment against this unit.

In addition to legal responsibilities, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for trapping	1.1 Identify purpose of animal capture and set objectives 1.2 Confirm the location and extent of the pest problem 1.3 Confirm target animal movement patterns and behaviour to determine trapping location and placement of equipment 1.4 Identify non-target animals present in the area 1.5 Estimate time required to complete trapping 1.6 Identify and check vehicles, materials and equipment required for trapping 1.7 Clean and maintain trapping equipment and prepare traps for trapping 1.8 Identify hazards associated with trapping and select appropriate personal protective equipment 1.9 Identify environmental risks associated with trapping animals 1.10 Determine correct protocols or requirements for entering and working on private and public land 1.11 Obtain relevant permissions and permits to enter property 1.12 Identify necessary precautions for minimising trapping of non-target animals 1.13 Tune, modify and prepare traps in working order to minimise non-target capture
2. Place and set traps	2.1 Undertake site surveillance prior to setting traps 2.2 Identify and interpret signs of target animal 2.3 Select and prepare trap site to maximise opportunity for trapping target animals

Element	Performance criteria
	2.4 Position, set and calibrate trapping equipment and check it for strength and security 2.5 Apply lures, decoys or baits and toxins as required 2.6 Camouflage traps as required 2.7 Apply precautions to prevent trapping of non-target animals
3. Check and remove traps	3.1 Inspect traps at the required frequency 3.2 Identify trapped animals then release, destroy or prepare for transport as required 3.3 Handle captured animals humanely according to animal welfare Codes of Practice 3.4 Transport animals from site, when required, in a safe and appropriate manner 3.5 Observe work health and safety procedures and public safety requirements prior to and during trapping activities 3.6 Release trap mechanism safely and remove trap 3.7 Restore trap-site to its prior condition
4. Record data	4.1 Record details of trap sets and lures as well as target and non-target capture 4.2 Report results of trapping activities, including any incidents with animals 4.3 Report trapping results in relation to approved management plan 4.4 Record trap locations and capture using Global Positioning System (GPS) device, approved software or maps, where required
5. Clean and store equipment and material	5.1 Remove, retain or dispose of carcasses as required 5.2 Clean and store and maintain equipment and materials

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG414 Apply predator trapping techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- humanely trap animals and release or destroy the animals as required
- identify target and non-target animals in the field
- check vehicles, equipment and materials for serviceability and clean equipment before starting and on completing the job
- select and prepare the trapping site and restore it on completion of the job
- position, set, calibrate and regularly check trapping equipment
- manufacture and apply lures or attractants, if required
- handle and euthanase captured animals in accordance with animal welfare guidelines
- identify signs of target animals, using scent stations and other animal tracks and traces
- summarise and present trapping data to supervisor
- use appropriate data sheets or other recording instruments to record details of trap sets and lures as well as target and non-target capture
- apply work health and safety practices in the context of own work
- apply appropriate animal welfare practices in trapping and handling trapped animals

Knowledge Evidence

The candidate must demonstrate knowledge of:

- basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice and Standard Operating Procedures
- the purpose of the animal capture
- the target animal's range, movement patterns and behaviour and how to apply knowledge of these to selecting trapping location and equipment

- Factors affecting choices around equipment and resources and timing of trapping activities, including:
 - the reproductive cycle of the target animal
 - food preferences, both general and local, of target animals
 - biology of non-target animals that may be impacted by trapping program in the area
 - permissions and permits that may be required
 - suitable traps for the target animal
 - precautions that need to be taken to minimise trapping non-target animals
- capture and humane killing methods for target animals
- principles relating to property, stock and duty of care
- how to camouflage traps
- how to safely set off traps to render them inactive
- work health and safety procedures that relate to trapping animals
- recording and reporting requirements
- how to use decoys and lures
- how to prepare toxins
- applicable State or Territory legislation on the use and storage of toxins
- applicable legislation on the capture and handling of pest animals
- suitable personal protective equipment
- transportation methods for captured animals

Assessment Conditions

Assessment must be conducted in a real work environment trapping live animals.

The assessment team must include assessors with firearms licences.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG506 Manage the implementation of legislation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage the implementation of legislation and provide support and advice to landholders to ensure compliance within organisational guidelines or legislative requirements.

This unit relates to management of pests, including weeds, vertebrate or invertebrate pests or a combination of these.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area and analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Develop procedures to identify infestations and locations	1.1 Analyse and interpret pest legislation 1.2 Develop procedures to identify land ownership, and responsibilities of all parties, in accordance with legislation 1.3 Develop procedures to contact landowners, and notify them of infestation and control requirements, consistent with organisational and regulatory guidelines 1.4 Confirm that record-keeping documents meet regulatory guidelines 1.5 Develop and implement procedures for serving notices 1.6 Develop and implement guidelines on collecting evidence and reporting findings 1.7 Establish organisational policy to provide assistance and advice to landholders in implementing pest management plans
2. Administer the implementation of legislation	2.1 Interpret, analyse and evaluate existing policy and provide recommendations 2.2 Determine need for legal action 2.3 Explain, to relevant workers, the policies dealing with right of entry and ensure that workers can adequately communicate these policies to landowners 2.4 Confirm that monitoring program identifies infestations that contravene existing legislation 2.5 Issue and serve penalty notices when required 2.6 Provide pest management advice to landholders 2.7 Collate evidence and findings for presentation in court or to legal representatives 2.8 Prepare ministerial briefs

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPMG506A Manage the implementation of legislation.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG506 Manage the implementation of legislation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must demonstrate that they can:

- develop procedures to identify infestations in accordance with relevant legislation
- interact with landholders to explain the ramifications of legislation
- provide pest management advice to landholders which is consistent with organisational guidelines and legislative requirements
- explain policies detailing right of entry to relevant workers
- if required, serve penalty notices
- collate evidence and findings for presentation in a court or to legal representatives
- write ministerial briefs and responses to correspondence

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Commonwealth and State/Territory legislation and regulation relevant to pest management
- relevant legislation regarding identification, destruction, movement, and propagation of declared species
- legislation relating to gathering and presenting evidence
- appropriate record-keeping systems
- environmental protection processes
- land management and production principles
- policy and procedure development techniques
- how to present evidence for court proceedings
- principles that underpin a strategic approach to managing pests

- pest control treatments relating to pests dealt with under legislation
- monitoring points in the pest management plan and evidence of infestations
- potential diseases and toxicity
- relevant local, regional, State/Territory and national pest management strategies

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG507 Develop a regional pest management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a pest management plan that applies to a large or regional level. It also describes the skills and knowledge required to gain agreement and commitment from stakeholders to implement the plan.

Pest management plans are used by land managers who practice sustainable land management principles and require a collaborative approach with neighbouring landholders.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in specific technical areas, are able to analyse and synthesise information and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine goals of the plan	1.1 Determine scope of the plan 1.2 Determine the need for, and establish a steering committee, where necessary 1.3 Determine consultation requirements 1.4 Conduct and document consultation with stakeholders to determine goals 1.5 Assess and document options for controlling pest populations, changing land management or production practices, in terms of economic factors, technical difficulty, practical feasibility, and social and environmental acceptability
2. Set specific objectives for the pest management plan	2.1 Define and document objectives to be achieved in consultation with stakeholders 2.2 Define roles and responsibilities of stakeholders in delivering objectives
3. Identify activities required to achieve specific objectives	3.1 Determine and document activities required to achieve objectives in consultation with stakeholders 3.2 Prioritise activities and seek commitment from relevant stakeholders, where relevant 3.3 Conduct risk management for community, environment, work health and safety and production 3.4 Ensure activities align with pest management plan, environmental sustainability policies and biosecurity plans or legislation 3.5 Determine monitoring, evaluation and reporting methods
4. Determine performance criteria for objectives	4.1 Determine measurable performance criteria in terms of target pest population levels, economic impacts and environmental impacts
5. Publish the plan	5.1 Check the plan meets all biosecurity, legislative and national and State or Territory strategic policies 5.2 Submit draft plan to stakeholders for review 5.3 Finalise plan and seek endorsement by key stakeholders 5.4 Publish and distribute plan according to organisational requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit has resulted from the merging of AHCPMG402A Develop a pest management action plan within a local area and AHCPMG503A Develop a strategy for the management of target pests and is not equivalent to either of these units.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG507 Develop a regional pest management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- produce a pest management plan that contains objectives and management options which comply with relevant legislation and best practice principles of pest management
- consult with stakeholders to reach agreed upon outcomes from identified objectives
- scope geographical area, landscape and land uses within area and with stakeholders
- develop pest management plan according to defined pest problem
- align pest management plan to biosecurity plans or legislation
- develop pest management plan in accordance with sustainable land use principles, economic feasibility, environmental acceptability and statutory requirements for pest control
- develop, evaluate and document all management options to control, eradicate or prevent pest populations
- achieve approval of the plan by key stakeholders
- conduct risk assessments and cost-benefit analyses of the range of management options available in order to select the best option for the specific context
- apply work health and safety policies and procedures in the context of own work
- include appropriate animal welfare Code of Practice and Standard Operating Procedures in the plan
- apply appropriate sustainability practices in the plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- planning techniques

- concepts of the strategic approach to pest management, the importance of monitoring and the effectiveness of management evaluation
- relevant local, regional, State/Territory and national pest management strategies
- Federal, State or Territory legislation and regulations relating to pest management activities
- principles of integrated pest management
- types of monitoring technology available
- land use processes, ecological systems and production systems
- pest management options and strategies
- techniques used to validate target pest population and distribution data supplied by stakeholders, and methods of obtaining other relevant data
- how to measure or estimate economic losses and environmental impacts from pest presence
- Federal and State or Territory legislation and regulations relating to property, stock and duty of care
- target pest biology and lifecycles
- potential diseases or toxicity risks
- pest population dynamics and economic and environmental thresholds
- wildlife issues and how to minimise risks to non-target species as well as deal with pest behaviour
- environmental protection legislation
- basic requirements for ensuring the welfare of animals described in the relevant Codes of Practice

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG508 Develop a system to monitor and evaluate the pest management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a pest monitoring and evaluation program.

Pests may be weeds, vertebrate or invertebrate pests or a combination of these.

The pest problem may be in a local or broader regional area.

This unit applies to individuals who take personal responsibility, and exercise autonomy, in undertaking complex work. They demonstrate deep knowledge in a specific technical area, are able to analyse and synthesise information and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research and identify pest monitoring and evaluation requirements	1.1 Determine monitoring and evaluation requirements 1.2 Assess attitudes, and land management practices, of stakeholders for their relevance and usefulness to the monitoring and evaluation program 1.3 Document how results from monitoring and evaluation will be used
2. Develop procedures for monitoring and evaluation	2.1 Identify target pests and select monitoring sites 2.2 Specify timing of sampling, observation systems, level of accuracy required and sample size 2.3 Identify economic and environmental impacts to be monitored 2.4 Identify factors that would trigger an emergency response 2.5 Define how reporting will be carried out and how results of sampling will be verified and analysed 2.6 Develop procedures for monitoring and recording the economic and environmental impacts of pests 2.7 Develop procedures for monitoring and recording pest abundance 2.8 Confirm monitoring program includes a schedule that is aligned to milestones in the pest management plan
3. Document the monitoring program	3.1 Design recording documents and forms 3.2 Document all procedures and recording systems and make accessible to relevant personnel 3.3 Ensure pest monitoring program aligns with relevant local, regional, state and national pest management strategies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit has resulted from the merging of AHCPMG403A Develop monitoring procedures for the local pest management strategy and AHCPMG504A Develop a system for monitoring the pest management strategy and is not equivalent to either of these units.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG508 Develop a system to monitor and evaluate the pest management plan

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a pest monitoring and evaluation program, in accordance with the local, regional, State or Territory and national pest management strategies
- consult with stakeholders to assess attitudes and land management practices, where relevant
- research and identify required operational and performance monitoring
- develop procedures for monitoring and evaluation, including how to access relevant techniques and adapt them for the pest management plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- procedures for monitoring and recording
- pest biology, behaviour and lifecycles and how they influence monitoring procedures
- pest population dynamics and economic and environmental thresholds
- relevant local, regional, State, Territory and national pest management strategies
- Federal, State or Territory legislation and regulations relating to pest management activities
- key concepts in the Integrated Pest Management strategy
- monitoring and evaluation principles and how they should be included in the management program
- reporting and recording procedures, including knowing how to appropriately package information in the correct format and at the appropriate level for the various target groups
- how to monitor and record pest abundance and the damage caused by the target pest
- target pests and monitoring points

- non-target species in the area
- potential economic and environmental impacts of pest population
- factors that would trigger an emergency response
- aims, objectives and milestones in the pest management plan
- requirements for ensuring the welfare of animals described in the relevant Codes of Practice, where monitoring plan involves pest animals
- potential diseases and toxicity relevant to the area and pests

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG509 Investigate a pest control failure

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to investigate causes of pest control failure after the implementation of a pest management plan.

Pests may be weeds, vertebrate or invertebrate pests or a combination of these.

Treatment may be any measure used to decrease the pest population and the damage caused by it.

This unit applies to regional pest control officers and managers who take personal responsibility for their own work and exercise autonomy in undertaking complex work. They analyse and synthesise information and analyse, design and communicate solutions to sometimes complex problems.

Individuals operating in this field are required to hold current chemical handling certification and a first aid certificate. Other licensing conditions may also apply to this unit. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess planning techniques used	1.1 Determine and assess management techniques used in the pest management plan 1.2 Assess the level of community and stakeholder consultation carried out 1.3 Evaluate the level of commitment gained from the community and stakeholders 1.4 Assess whether the definition of the pest problem is correct 1.5 Assess staff understanding of the pest and the damage caused 1.6 Determine monitoring techniques used and assess suitability
2. Assess treatment failure	2.1 Assess whether damage caused by the pest after treatment is within expectations 2.2 Determine pre-treatment and post-treatment pest infestation levels by monitoring pest management plan records and inspection 2.3 Determine expected pest population after treatment using available information 2.4 Assess the difference between expected and monitored population 2.5 Assess treatments and application techniques used 2.6 Determine whether failure is due to product failure or pesticide resistance if pesticides are involved 2.7 Determine operator's qualifications and experience in applying a particular pest treatment where appropriate
3. Evaluate solutions to the failure	3.1 Assess possible solutions to the failure 3.2 Determine best option for solution based on cost, appropriateness to the problem and timing 3.3 Review pest management plans and implementation plans as required and advise stakeholders, personnel and contractors of the changes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCPMG406A Investigate a reported pest treatment failure

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG509 Investigate a pest control failure

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- investigate and assess a pest treatment failure
- find solutions to the failure
- analyse pre-treatment and post-treatment pest infestation levels
- assess planning techniques used
- evaluate solutions to the failure

Knowledge Evidence

The candidate must demonstrate knowledge of:

- how to survey pest populations to determine infestation levels
- monitoring techniques
- how to assess whether the definition of the pest problem is correct
- range of pest treatments appropriate to context
- a deep understanding of a variety of pest control measures
- the principles that underpin the strategic approach to managing pests
- Federal, State or Territory legislation and regulations relating to pest management activities
- chemical, biological, physical and habitat techniques for pest management

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPMG510 Develop a pest survey strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a plant pest survey strategy to determine the presence, distribution and prevalence of a pest.

Pests may be weeds, vertebrate or invertebrate pests or a combination of these.

The work may be conducted as part of an emergency response to an incursion or as part of routine surveillance, and must be conducted in accordance with established standards and protocols.

This unit applies to individuals who have been appointed or engaged to undertake a role within a pest incursion response. They may also be involved with planning responses to emergency animal diseases and aquatic animal diseases.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They are accountable for the work of others within broad parameters and analyse information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all units of competency dealing with animals in the AHC Training Package have the requirements for animals to be handled humanely to minimise stress and discomfort.

Pre-requisite Unit

Nil.

Unit Sector

Pest Management (PMG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Obtain and analyse biological information for survey design	1.1 Identify the biological and dispersal characteristics of the pest 1.2 Determine impact of climate on reproduction rates and the predicted distribution of the pest 1.3 Identify the geographical distribution of the host 1.4 Analyse information to determine priority areas to be surveyed
2. Develop survey methodology	2.1 Determine particular type of survey to be designed according to phase of incursion 2.2 Determine field data collection methodology in consultation with technical experts 2.3 Incorporate quality assurance standards that apply to survey methodology and documentation 2.4 Select appropriate diagnostic tests for use in confirming pest presence in samples 2.5 Include procedure for sustainability and biosecurity in survey plan 2.6 Develop instructions for survey teams
3. Determine the resources required	3.1 Determine and document resources required for survey activities in conjunction with technical experts
4. Obtain approval for the survey design	4.1 Document survey design according to protocols and standards 4.2 Submit survey design to appropriate authorities for approval
5. Determine post-survey review processes	4.1 Determine review processes to evaluate implementation and effectiveness of survey program

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPMG601A Develop a pest survey strategy

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPMG510 Develop a pest survey strategy

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- produce a pest survey strategy in accordance with local, regional, State/Territory and national pest management strategies
- write work instructions for survey teams
- work with other technical experts
- analyse biological information for survey design
- develop survey methodology appropriate for target pest, environment and terrain
- prepare plans to workplace and authority standards
- develop review processes according to workplace requirements
- apply biosecurity measures in the context of own work
- apply appropriate sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate detailed knowledge of:

- biometric principles to biological survey design
- the biology of groups of pests and pathogens relevant to the survey
- the types and distribution of hosts relevant to the survey
- requirements for ensuring the welfare of animals described in the relevant Codes of Practice

The candidate must demonstrate knowledge of:

- pest biology, behaviour and lifecycles
- diagnostic tests for use in confirming pest presence in samples

- resources required for survey activities

Assessment Conditions

Assessment must take place in a functioning control centre, or a control centre established for a pest response simulation exercise.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK201 Care for health and welfare of pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to care for the health and welfare of pigs. This unit applies to workers in pork production enterprises operating under routine supervision.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Check and assess pig health and welfare	1.1 Check pig health and welfare regularly 1.2 Recognise and report signs of ill health, diseases, parasite infestations and physical abnormalities 1.3 Record pig health and welfare status 1.4 Seek immediate advice where signs indicate an unusual disease
2. Provide an optimal environment for pigs	2.1 Operate and check temperature and other environment control equipment where appropriate 2.2 Record relevant information on shed environmental conditions
3. Establish and maintain hygiene	3.1 Use and maintain personal protective equipment, and follow work health and safety procedures 3.2 Follow biosecurity procedures 3.3 Follow personal hygiene practices 3.4 Clean work areas, machines and surfaces appropriately 3.5 Remove and dispose of all waste and debris appropriately in line with enterprise environmental policies
4. Administer medication to pigs	4.1 Store labelled vaccines, veterinary medicines and other chemicals appropriately as directed 4.2 Carry out routine disease or parasite prevention procedures 4.3 Measure and administer medication under supervision 4.4 Administer vaccines as required, and identify pigs that have been vaccinated 4.5 Complete required documentation and records for administration of vaccines, medicines and chemicals
5. Remove dead or non-viable pigs	5.1 Dispose of dead pigs appropriately 5.2 Recognise, report and carry out appropriate procedures for unhealthy or non-viable pigs 5.3 Provide post-mortem assistance where necessary
6. Report and complete records	6.1 Complete all required documentation and records of diseases, pig losses and treatments clearly, promptly and accurately 6.2 Report to enterprise where relevant so that prevention strategies can be planned and implemented

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPRK201A Care for health and welfare of pigs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK201 Care for health and welfare of pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- check and assess pig health and welfare
- provide an optimal environment for pigs
- establish and maintain hygiene
- administer medication to pigs
- remove dead or non-viable pigs
- report and complete records
- follow work health and safety policies
- follow biosecurity policies
- follow animal welfare policies
- follow environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant regulatory requirements, codes of practice, industry standards and enterprise procedures for biosecurity
- relevant regulatory requirements, codes of practice, industry standards and enterprise procedures for animal welfare of pigs
- signs of health, signs of ill health, and methods for assessing pig health and welfare
- techniques and methods for humane handling and restraint of pigs
- common diseases of pigs, treatment regimes, prevention and management strategies
- criteria for handling compromised pigs
- relevant documentation, records and reports that are required

- types, functions and characteristics of housing, housing infrastructure and housing equipment for pigs, and the criteria and methods for determining that they are in working condition
- types, uses, handling, storage and routes of administration of commonly used vaccines, veterinary medicines and chemicals
- requirements, methods and procedures for removing and disposing of waste and debris
- procedures for conducting post-mortem examinations
- effects and impacts of individual pig health and welfare on herd health status and vice versa
- relevant work health and safety requirements and environmental practices

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK203 Move and handle pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to move and handle pigs.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to workers in pork production enterprises operating under routine supervision within organisational guidelines.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Control and move pigs	1.1 Conduct moving, manual handling, lifting and restraining of pigs in a safe and appropriate manner in compliance with relevant work health and safety requirements

Element	Performance criteria
	1.2 Move and handle pigs either singly or in groups safely and humanely, using appropriate positive behavioural methods 1.3 Monitor pigs constantly for signs of distress and take appropriate action 1.4 Record as required
2. Restrain pigs	2.1 Restrain pigs safely and humanely in line with enterprise animal welfare policies
3. Weigh or condition score pigs	3.1 Weigh individual pigs and groups of pigs as required, in line with enterprise biosecurity policies 3.2 Read ear tag, ear notch or pen number to identify pigs
4. Return pigs to housing	4.1 Return pigs to their housing or secure pigs at their final destinations as appropriate

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPRK203A Move and handle pigs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK203 Move and handle pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- control and move pigs
- restrain pigs
- weigh and condition score pigs
- return pigs to housing
- follow work health and safety policies
- follow biosecurity policies
- follow animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- techniques and methods for humane handling and restraint of pigs
- relevant regulatory requirements, industry standards and codes of practice for ensuring animal welfare of pigs
- signs of health, signs of ill health, signs of distress and methods for assessing pig health, welfare and behaviour
- requirements, methods and procedures for weighing pigs
- types and methods of identifying pigs
- relevant work health and safety and biosecurity requirements

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK204 Care for weaner pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to care for weaner pigs.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare accommodation for	1.1 Clean, disinfect and prepare appropriate accommodation for all classes of weaned pigs according to enterprise procedures and

Element	Performance criteria
weaners	instructions 1.2 Check and adjust housing environment and conditions as required to ensure appropriate ventilation, temperature and humidity 1.3 Fill or prepare feeders and drinkers according to supervisor's instructions 1.4 Identify problems with accommodation or environmental controls and report to the supervisor for appropriate action 1.5 Conduct all work according to enterprise requirements, work health and safety, biosecurity, animal welfare and industry regulations
2. Carry out weaner pig operations	2.1 Group pigs from different litters to form viable groups based on body weight and sex at stocking densities to achieve optimal productivity 2.2 Monitor behaviour, health and condition of weaners regularly and take appropriate actions 2.3 Provide weaners with water and appropriate feed according to the established feed schedule to meet nutritional and growth requirements 2.4 Record or report weaner mortalities to the supervisor and remove deceased stock according to enterprise policy 2.5 Administer preventative treatments according to enterprise schedules and the supervisor's instructions
3. Transition weaners to grower facility	3.1 Identify pigs for transition to grower facilities 3.2 Separate pigs not fit to load and take appropriate actions according to company policy 3.3 Identify pigs that have been treated and record withholding periods (WHP) for grower facility 3.4 Complete documentation clearly, accurately and promptly

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK204 Care for weaner pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare accommodation for weaners
- carry out weaner pig operations
- transition weaners to grower facility
- follow work health and safety policies
- follow biosecurity policies
- follow animal welfare policies
- follow environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, characteristics, requirements and care of weaner pigs
- types, functions, characteristics, cleaning and maintenance of relevant pig accommodation and production installations and equipment, such as feeders and drinkers
- range, effects and impacts of ventilation, temperature, humidity and other environmental parameters on weaner pig health and welfare
- optimal range of values for ventilation, temperature, humidity and other environmental parameters for weaner pigs and methods for measuring these values
- requirements and components of enterprise work routines for weaner pigs
- techniques and methods for humane handling and restraint of pigs
- requirements, methods and procedures for weaning piglets
- requirements, methods and procedures for formation of viable weaner groups, and the impacts of a viable group on individual pig health and production
- signs of health, signs of ill health, and methods for assessing pig health, welfare and behaviour

- nutritional requirements and methods and procedures for feeding and watering weaner pigs
- criteria and methods of assessing optimal stocking densities of weaner pigs
- criteria for assessing suitability of weaner pigs for transition to grower facilities
- requirements, methods and procedures for removal and disposal of pig carcasses
- types, uses and procedures of relevant veterinary and preventive treatments of weaner pigs
- withholding periods of veterinary chemicals and medicines and rationale for withholding periods
- types, handling, use and disposal of cleaning agents and disinfectants, work health and safety and environmental practices for these chemicals
- types of documentation and records that are required for weaner pig operations
- relevant work health and safety and biosecurity requirements and environmental practices

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK205 Care for health and welfare of outdoor pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to care for the health and welfare of outdoor pigs.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Check and assess pig	1.1 Check pig health and welfare regularly

Element	Performance criteria
health and welfare	1.2 Recognise and report signs of ill health, diseases, parasite infestations and physical abnormalities 1.3 Record pig health and welfare status 1.4 Seek immediate advice where signs indicate an unusual disease
2. Provide an optimal environment for pigs	2.1 Check outdoor housing conditions and record relevant information where appropriate
3. Establish and maintain hygiene	3.1 Use and maintain personal protective equipment, and follow work health and safety procedures 3.2 Follow biosecurity procedures 3.3 Follow personal hygiene practices 3.4 Clean work areas, machines and surfaces appropriately 3.5 Remove and dispose of all waste and debris appropriately in line with enterprise environmental policies
4. Administer medication to pigs	4.1 Store labelled vaccines, veterinary medicines and other chemicals appropriately as directed 4.2 Carry out routine disease or parasite prevention procedures 4.3 Measure and administer medication under supervision 4.5 Administer vaccines as required, and identify pigs that have been vaccinated 4.6 Complete required documentation and records for administration of vaccines, medicines and chemicals
5. Remove dead or non-viable pigs	5.1 Dispose of dead pigs appropriately 5.2 Recognise, report and carry out appropriate procedures for unhealthy or non-viable pigs 5.3 Provide post-mortem assistance where necessary
6. Report and complete records	6.1 Complete all required documentation and records of diseases, pig losses and treatments clearly, promptly and accurately 6.2 Report to enterprise where relevant so that prevention strategies can be planned and implemented

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK205 Care for health and welfare of outdoor pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- check and assess pig health and welfare
- provide an optimal environment for pigs
- establish and maintain hygiene
- administer medication to pigs
- remove dead or non-viable pigs
- report and complete records
- follow work health and safety procedures
- follow biosecurity procedures
- follow animal welfare policies
- follow environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant regulatory requirements, codes of practice, industry standards and enterprise procedures for biosecurity and quarantine
- relevant regulatory requirements, codes of practice, industry standards and enterprise procedures for animal welfare of pigs
- signs of health, signs of ill health, and methods for assessing pig health and welfare
- techniques and methods for humane handling and restraint of pigs
- common diseases of pigs, treatment regimes, prevention and management strategies
- criteria for handling compromised pigs
- relevant documentation, records and reports that are required

- the types, functions and characteristics of housing, housing infrastructure and housing equipment for outdoor pigs, and the criteria and methods for determining that they are in working condition
- types, uses, handling, storage and routes of administration of commonly used vaccines, veterinary medicines and chemicals
- requirements, methods and procedures for removing and disposal of waste and debris
- procedures for conducting a post-mortem examination
- effects and impacts of individual pig health and welfare on herd health status and vice versa
- relevant work health and safety requirements and environmental practices

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK206 Conduct outdoor pig operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to conduct outdoor pig operations.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare housing	1.1 Follow enterprise work health and safety and biosecurity policies

Element	Performance criteria
	1.2 Clean, disinfect and prepare housing for pigs 1.3 Prepare and fill feeders and drinkers 1.4 Prepare appropriate outdoor environment amenities as required 1.5 Report problems with housing
2. Provide for care and welfare of pigs	2.1 Identify and check that care and welfare needs of pigs are met in compliance with the relevant legislation, codes of practice and industry standards and guidelines 2.2 Provide appropriate feed and water supplies for pigs 2.3 Carry out handling, husbandry and enterprise procedures safely and appropriately
3. Carry out operational tasks	3.1 Wean litter according to established enterprise schedules if required 3.2 Select pigs from different litters to form viable groups based on body weight and sex at optimal stocking densities for maximum productivity, if required 3.3 Check behaviour and condition of pigs regularly and report as required 3.4 Administer preventative treatments according to enterprise schedules and supervisor instructions 3.5 Carry out maintenance of production environment as required
4. Check pigs	4.1 Check pig condition and health as part of regular routine 4.2 Check feeders and drinkers as part of regular routine 4.3 Check infrastructure and amenities, and carry out maintenance as required 4.4 Move pig groups as required in line with growth and condition 4.5 Remove poor performing pigs from existing groups and regroup 4.6 Isolate sick, injured or unhealthy pigs or identify for euthanasia 4.7 Apply health treatments when required 4.8 Remove dead pigs and report and record as required. 4.9 Check production environmental conditions, report and carry out maintenance as required
5. Complete records	5.1 Complete required documentation and records accurately and promptly 5.2 Report to supervisor and management as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK206 Conduct outdoor pig operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare housing
- provide for care and welfare of pigs
- carry out operational tasks
- check pigs
- complete records
- follow work health and safety policies
- follow biosecurity policies
- follow animal welfare policies
- follow environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant legislation, codes of practice, industry standards and guidelines for outdoor pig production
- types, functions, characteristics, cleaning and maintenance of outdoor pigs
- requirements and components of enterprise work routines for outdoor pigs
- types, functions, characteristics, cleaning and maintenance of relevant outdoor pig housing and production installations and equipment, such as feeders and drinkers
- techniques and methods for humane handling and restraint of pigs in outdoor production environments
- requirements, methods and procedures for weaning piglets
- requirements, methods and procedures for formation of viable groups, and the impacts of a viable group on individual pig health and production

- signs of health, signs of ill health, and methods for assessing pig health, welfare and behaviour
- nutritional requirements and methods and procedures for feeding and watering outdoor pigs
- criteria and methods of assessing optimal stocking densities of pigs
- requirements, methods and procedures for removal and disposal of pig carcasses
- types, uses and procedures of relevant veterinary and preventive treatments of pigs
- types, handling, use and disposal of cleaning agents and disinfectants, work health and safety and environmental practices for these chemicals
- types of documentation and records that are required for pig operations
- requirements and maintenance of outdoor pig production environment
- relevant work health and safety and biosecurity requirements and environmental practices

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK301 Pregnancy test pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to test pigs for pregnancy.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for pregnancy testing	1.1 Prepare pregnancy testing work site and relevant documentation 1.2 Select, use and maintain personal protective equipment

Element	Performance criteria
	1.3 Identify pigs to be tested according to the breeding program 1.4 Assemble required resources and manpower 1.5 Isolate individual pigs for testing or marking as required
2. Carry out pregnancy testing procedures	2.1 Handle individual pigs safely and humanely while testing and check breeding records 2.2 Use ultra sound equipment for pregnancy diagnosis 2.3 Apply knowledge of relevant anatomy and physiology 2.4 Use strict hygiene procedures between individual pigs in line with enterprise biosecurity policies 2.5 Complete records and report outcomes 2.6 Assess and record individual pig health and condition for input to herd health management
3. Carry out post pregnancy testing procedures	3.1 Identify pigs as pregnant or not pregnant 3.2 Return pigs to their appropriate destination 3.3 Clean work site, remove and dispose of waste and debris appropriately in line with enterprise environmental policies 3.4 Check pigs post testing regularly for health and condition

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPRK301A Pregnancy test pigs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK301 Pregnancy test pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for pregnancy testing
- carry out pregnancy testing procedures
- carry out post pregnancy testing procedures
- follow work health and safety policies
- follow biosecurity policies
- follow animal welfare policies
- follow environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- techniques and methods for humane handling and restraint of pigs
- requirements, methods and procedures for pregnancy testing of pigs
- requirements and types of relevant documentation and records
- information required from breeding records for pregnancy testing
- reproductive anatomy, reproductive physiology, pregnancy development and embryological/foetal development in pigs
- types, methods and procedures for pregnancy diagnosis of pigs
- types, handling, use and disposal of cleaning agents and disinfectants, work health and safety and environmental practices for these chemicals
- methods and procedures for hygiene practices during pregnancy diagnosis
- signs of health, signs of ill health, and methods for assessing pig health, welfare and behaviour
- effects and impacts of individual pig health and welfare on herd health status and vice versa

- types and methods of identifying pigs
- requirements, methods and procedures for cleaning work sites
- relevant work health and safety and biosecurity requirements and environmental practices

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK302 Treat rectal prolapse in pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to treat rectal prolapse in pigs.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Respond to signs of rectal prolapse	1.1 Recognise signs of rectal prolapse 1.2 Remove pig from pen

Element	Performance criteria
	1.3 Determine treatment based on severity of injury and animal's health and condition 1.4 Seek supervisor's, veterinary or other expert advice where required 1.5 Prepare work site, required resources and materials for treatment 1.6 Isolate pig in hospital pen where required 1.7 Follow enterprise animal welfare and biosecurity policies 1.8 Recognise outbreaks of rectal prolapse in a herd and notify management
2. Treat rectal prolapse	2.1 Select, use and maintain appropriate personal protective equipment 2.2 Apply knowledge of relevant animal anatomy and physiology 2.3 Clean prolapses appropriately 2.4 Treat as prescribed by veterinary advice 2.5 Recognise and treat rectal strictures where appropriate 2.6 Administer antibiotics to pigs with rectal prolapse where required
3. Report and reduce incidence of rectal prolapse	3.1 Report incidents and treatments to supervisor or management 3.2 Identify possible causes of prolapse 3.2 Implement changes to pig management to reduce incidence of rectal prolapse

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPRK302A Treat rectal prolapse in pigs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK302 Treat rectal prolapse in pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- respond to signs of rectal prolapse
- treat rectal prolapse
- report and reduce incidence of rectal prolapse
- follow work health and safety policies
- follow biosecurity policies
- follow animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- signs, causes, treatment, management and prevention of rectal prolapse
- anatomy and physiology of relevant organs and tissues
- techniques and methods for humane handling and restraint of pigs for rectal prolapse
- signs of health, signs of ill health, and methods for assessing pig health, welfare and behaviour
- work site requirements, resources and materials for treatment of rectal prolapse
- characteristics, signs, management and control of rectal prolapse outbreaks
- relevant work health and safety requirements for treatment of rectal prolapse
- signs, causes, treatment, management and prevention of rectal strictures
- requirements, functions and procedures for setting up hospital pens
- relevant biosecurity requirements

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK303 Artificially inseminate pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to artificially inseminate pigs.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for artificial insemination	1.1 Follow appropriate hygiene and biosecurity procedures 1.2 Follow enterprise work health and safety policies

Element	Performance criteria
	1.3 Obtain semen supplies and resources 1.4 Follow artificial insemination program and procedures
2. Inseminate pigs and record data	2.1 Identify sows for insemination and ensure they are at the correct stage of their oestrus cycles 2.2 Handle pigs humanely in line with enterprise animal welfare policies 2.3 Prepare pigs for artificial insemination 2.4 Apply knowledge of relevant animal anatomy and physiology 2.5 Conduct insemination using appropriate hygiene procedures 2.6 Complete required documentation and records promptly and accurately
3. Clean work area and equipment	3.1 Return pigs to designated area 3.2 Dispose of waste and debris appropriately in line with enterprise environmental policies 3.3 Clean work area appropriately 3.4 Clean, maintain and store equipment appropriately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPRK303A Artificially inseminate pigs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK303 Artificially inseminate pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for artificial insemination
- inseminate pigs and record data
- clean work area and equipment
- follow work health and safety policies
- follow biosecurity policies
- follow animal welfare policies
- follow environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- resource and manpower requirements, biosecurity requirements, industry standards, codes of practice and procedures for artificial insemination of pigs
- relevant animal welfare practices for the conduct of artificial insemination in pigs
- procurement, transportation, handling, maintenance, storage and use of porcine semen for artificial insemination
- anatomy and physiology of reproductive organs and structures in pigs
- relevant documentation and records that are required
- relevant environmental and sustainability requirements, and procedures for disposal and management of wastes and debris
- requirements and procedures for cleaning and maintaining work areas
- types, uses, maintenance, servicing and storage of equipment
- methods and procedures for cleaning and disinfection of equipment used for artificial insemination

- procedures for handling, measurement and usage of cleaning chemicals, disinfectants and sanitisers
- work health and safety and biosecurity requirements and environmental practices

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessments must be conducted on live animals.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK304 Mate pigs and monitor dry sow performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage the mating of pigs and monitor dry sow performance.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine condition of pigs and adjust	1.1 Determine and record condition scores of pigs 1.2 Rank pigs according to scores and adjust nutritional requirements

Element	Performance criteria
nutrition for mating	<p>to ensure pigs are in optimum condition at mating</p> <p>1.3 Ensure feeding strategies are appropriate for the housing environment and seasonal conditions</p> <p>1.4 Monitor and assess condition of pigs regularly</p>
2. Facilitate mating	<p>2.1 Apply knowledge of relevant animal anatomy and physiology</p> <p>2.2 Carry out oestrus inducement and detection procedures</p> <p>2.3 Follow enterprise work health and safety and biosecurity policies</p> <p>2.4 Ensure mating areas are secure and provide for access during joining</p> <p>2.5 Use mating procedures and handling techniques that maximise welfare of pigs</p> <p>2.6 Supervise mating and intervene when required to maximise conception rates</p>
3. Complete mating procedures	<p>3.1 Carry out regular post-mating heat detection to identify sows returning to oestrus</p> <p>3.2 Complete mating records promptly and accurately</p>
4. Determine and provide adequate nutrition for pregnant sows	<p>4.1 Determine nutritional needs of pregnant sows using the enterprise feeding plan</p> <p>4.2 Provide adequate and suitable feed and feed supplements in accordance with the feeding plan and sow condition</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPRK304A Mate pigs and monitor dry sow performance.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK304 Mate pigs and monitor dry sow performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine condition of pigs and adjust nutrition for mating
- facilitate mating
- complete mating procedures
- determine and provide adequate nutrition for pregnant sows
- follow work health and safety policies
- follow biosecurity policies
- follow animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- criteria and methods for body condition scoring of pigs
- nutritional requirements, types of feed and feeding methods for pregnant and non-pregnant sows
- methods and procedures for determining nutritional requirements of pregnant and non-pregnant sows
- relevant husbandry and management practices for pregnant and non-pregnant sows
- relevant anatomy and physiology of sows
- reproductive physiology and pregnancy development of sows
- methods and procedures for oestrus detection in sows
- requirements, methods, procedures and management of mating in pigs
- methods and management of conception rates in pigs
- relevant animal welfare practices for mating of pigs

- methods and procedures for pregnancy diagnosis in sows
- relevant documentation and records that are required
- relevant work health and safety and biosecurity requirements

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK305 Care for grower and finisher pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to care for grower pigs.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare accommodation for	1.1 Clean and prepare accommodation for new grower stock according to enterprise procedures

Element	Performance criteria
growers	1.2 Follow enterprise work health and safety policies 1.3 Control and monitor environment in line with established enterprise biosecurity and environmental policies 1.4 Fill or prepare feeders and drinkers according to instructions 1.5 Identify problems with accommodation and/or environmental controls and report to supervisor for appropriate action
2. Carry out grower and finisher pig operations	2.1 Monitor pig condition and health regularly as an integral part of daily routines 2.2 Check feeders and drinkers regularly as part of daily routines 2.3 Move pig groups as required in line with growth, condition and stocking density 2.4 Remove poor performing pigs from groups and reassign in line with enterprise policy 2.5 Isolate sick, injured or unhealthy pigs in a quarantine area or identify for euthanasia according to enterprise animal welfare policies 2.6 Apply health treatments when required and according to supervisor's instructions and enterprise policy 2.7 Record or report grower mortalities to the supervisor and remove deceased stock according to enterprise policy.
3. Identify and select sale pigs	3.1 Identify pig according to enterprise market requirements 3.2 Assess pigs for transportation prior to loading 3.3 Complete or verify property banding for every sale animal 3.4 Separate pigs not fit to load and take appropriate action according to enterprise policy 3.5 Complete pig pass and other documentation for accurately and consistently

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK305 Care for grower and finisher pigs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare accommodation for growers
- carry out grower and finisher pig operations
- identify and select sale pigs
- follow work health and safety policies
- follow biosecurity policies
- follow animal welfare policies
- follow environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types, characteristics, requirements and care of grower and finisher pigs
- types, functions, characteristics, cleaning and maintenance of relevant pig accommodation and production installations and equipment, such as feeders and drinkers
- range, effects and impacts of ventilation, temperature, humidity and other environmental parameters on grower pig health and welfare
- optimal range of values for ventilation, temperature, humidity and other environmental parameters for grower pigs and methods for measuring these values
- requirements and components of enterprise work routines for grower pigs
- techniques and methods for humane handling and restraint of pigs
- requirements, methods and procedures for formation of viable grower groups, and the impacts of a viable group on individual pig health and production
- signs of health, signs of ill health, and methods for assessing pig health, welfare and behaviour

- nutritional requirements and methods and procedures for feeding and watering grower pigs
- criteria and methods of assessing optimal stocking densities of grower pigs
- requirements, methods and procedures for removal and disposal of pig carcasses
- types, uses and procedures of relevant veterinary and preventive treatments of grower pigs
- types, handling, use and disposal of cleaning agents and disinfectants , work health and safety and environmental practices for these chemicals
- types of documentation and records that are required
- criteria, methods and procedures for assessing suitability of pigs for transport and loading
- features and requirements of property banding and PigPass
- relevant work health and safety and biosecurity requirements and environmental practices

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK306 Monitor and maintain outdoor pig production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor and maintain outdoor pig production.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work in the production area	1.1 Confirm work to be undertaken from work program where necessary, and clarify with supervisor if required

Element	Performance criteria
	<p>1.2 Identify work health and safety hazards, assess risks and implement suitable controls</p> <p>1.3 Select and use suitable personal protective equipment</p> <p>1.4 Select, check and maintain tools and equipment suitable for the work to be undertaken</p> <p>1.5 Communicate the personal protective equipment and other safety requirements to staff and contractors, and obtain confirmation of understanding</p> <p>1.6 Monitor weather and carry out preparations or adjustments to work program as required</p>
2. Coordinate work activities and monitor progress	<p>2.1 Communicate the work required to staff and contractors clearly and unambiguously following the production plan and program</p> <p>2.2 Meet work schedules, plans and priorities according to the needs of the organisation or situation</p> <p>2.3 Ensure the allocation of work optimises resources and the existing competencies of staff</p> <p>2.4 Communicate with operational staff and any contractors regularly to ensure smooth operation and progress</p> <p>2.5 Provide feedback to staff and management on request, or as necessary</p>
3. Monitor pig health	<p>3.1 Observe pigs for signs of ill health, and record and report changes</p> <p>3.2 Observe and monitor pig behaviour, and record and report abnormalities</p> <p>3.3 Ensure that welfare and care needs of pigs are adequately provided</p> <p>3.4 Ensure that pigs have access to clean and adequate water supply</p> <p>3.5 Examine dead pigs for evidence of disease through post-mortem techniques in line with regulatory and industry standards and veterinary advice</p> <p>3.6 Identify disease status of herd and request staff or veterinary assistance when required</p> <p>3.7 Check components of biosecurity procedures for compliance</p>
4. Monitor pig housing, sheds, shelters and infrastructure	<p>4.1 Monitor outdoor pig housing, sheds or shelters for wear and tear, and carry out maintenance and repair as required</p> <p>4.2 Monitor outdoor facilities and infrastructure such as fencing, feeders and drinkers, and carry out maintenance or repair as required</p>
5. Monitor effluent and waste removal, storage and treatment	<p>5.1 Remove manure and litter if required, and store or treat appropriately</p> <p>5.2 Remove, store and treat liquid effluent appropriately and as</p>

Element	Performance criteria
	<p>required</p> <p>5.3 Check that manure and effluent storage and treatment systems are operated according to the production program and manufacturer's instructions</p> <p>5.4 Ensure that all waste and used consumables are removed from production site and disposed of in line with enterprise environmental policies</p> <p>5.6 Ensure work, health and safety requirements are being observed and followed</p>
6. Monitor and maintain production environment	<p>6.1 Identify and monitor production environment components</p> <p>6.2 Observe production environment for signs of deterioration, and record and report to management</p> <p>6.3 Monitor nutrient, soil and water conditions of production environment, report and carry out maintenance as required</p> <p>6.4 Coordinate or carry out maintenance of production environment as required.</p>
7. Complete records and documentation	<p>7.1 Collate information gathered throughout production operations</p> <p>7.2 Document collated information where required, and prepare for reporting to supervisor or manager</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK306 Monitor and maintain outdoor pig production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for work in the production area
- coordinate work activities
- monitor daily operations
- monitor herd health
- monitor production environment
- complete records and documentation
- follow work health and safety policies
- follow biosecurity policies
- follow animal welfare policies
- follow environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant legislation, codes of practice, industry standards and guidelines for outdoor pig production
- features and uses of enterprise production plans, enterprise work programs, environmental management plan and nutrient management plan
- requirements, maintenance, mitigation and protection measures for nutrients, soils, ground and surface water
- significance, effects and control measures for chemicals, gaseous emissions and odours that impact on the production environment and surrounding community
- relevant regulatory, industry and enterprise work health and safety requirements, codes of practice and standards

- use and maintenance of personal protective equipment
- types, functions, cleaning and maintenance of relevant tools and equipment
- types, requirements for and methods for determining allocation of enterprise resources
- strategies for communicating with and providing feedback to staff, contractors and management
- effects and impacts of weather elements on enterprise work programs and outdoor production environments, and preparations and adjustments to mitigate such impacts
- types, functions, characteristics, cleaning and maintenance of relevant outdoor pig housing and production installations and equipment, such as fencing, feeders and drinkers
- requirements, methods and procedures for manure and litter removal and treatment
- types, characteristics, functions, operation and maintenance of effluent storage and treatment systems
- requirements, methods and procedures for waste removal and disposal
- common diseases signs of health, signs of ill health, and methods for assessing individual pig and herd health and condition
- requirements, methods and procedures for conducting post mortem examination of pigs
- relevant regulatory, industry and enterprise biosecurity requirements, codes of practice and standards
- relevant regulatory, industry and enterprise environmental and sustainability requirements, codes of practice and standards
- criteria, methods and procedures for monitoring environmental health and condition
- relevant documentation, records and reports that are required
- relevant animal welfare requirements

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK401 Implement a feeding strategy for pig production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement a feeding strategy for pig production.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine feed rations and schedules	1.1 Determine feed quantities required from the production program 1.2 Use relevant laboratory results when determining quantities and

Element	Performance criteria
	ration formulation of stockfeed 1.3 Schedule and allocate responsibility for feeding in line with the production program and other operations in the facilities 1.4 Determine methods of providing feed to livestock
2. Manage storage of feed	2.1 Develop a plan for secure and hygienic storage of feed in line with enterprise biosecurity policies 2.2 Select storage location with safe access 2.3 Organise rotation and replenishment of feedstock supplies to ensure freshness 2.4 Formulate feeding plan to suit the needs of livestock, their nutritional requirements and the equipment available in the organisation 2.5 Collect and prepare samples of feed for testing according to the production program 2.6 Supervise calibration of measuring equipment and calculation of quantities regularly 2.7 Check that suitable personal protective equipment are appropriately used and maintained, and enterprise work health and safety policies are followed
3. Supervise feeding	3.1 Ensure that rations are supplied according to the production program and feeding plan. 3.2 Ensure continuous supplies of potable water are available to livestock 3.3 Monitor the health and condition of livestock and their production levels; and report any reaction or change to a change in feed types, ingredients or schedules 3.4 Provide advice to enterprise staff on the feeding of livestock when requested, or when the need arises 3.5 Remove and dispose of all waste and debris from the facilities appropriately in line with enterprise environmental policies 3.6 Complete required documentation and records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPRK401A Implement a feeding strategy for pig production.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK401 Implement a feeding strategy for pig production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine feed rations and schedules
- manage storage of feed
- supervise feeding
- implement work health and safety policies
- implement biosecurity policies
- implement animal welfare policies
- implement environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles of nutrition, feeding strategies and feeding management of pigs
- types, characteristics and quality assessments of feed ingredients, and the methods for assessing their nutritional value in meeting the needs of pigs
- types, forms and characteristics of pig feeds
- correlation and application of nutritional test results in formulating feeding strategies and feeding plans
- criteria, requirements, types of and principal considerations for feed storage
- features, criteria and requirements for formulating a feeding plan
- requirements, methods and procedures for collecting, preparing and transporting feed samples for testing
- types, calibration and use of measuring equipment
- relevant work health and safety requirements and selection, use and maintenance of personal protective equipment

-
- requirements, types and maintenance of potable water supplies to pigs
 - signs of health, ill health, good condition and poor condition in livestock, and methods for assessing pig health and condition in relation to nutrition and feeding
 - possible production changes in relation to changes in nutrition, feeds and feeding strategies
 - types of and disposal methods for organic and non-organic waste
 - relevant documentation and records that are required
 - relevant animal welfare and biosecurity requirements and environmental practices

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCPRK402 Maintain outdoor pig production environment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain outdoor pig production environment.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Pork (PRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify components of production	1.1 Identify relevant legislation, codes of practice, industry standards

Element	Performance criteria
environment and work required	and guidelines for outdoor pig production environments 1.2 Access enterprise environment management plan and nutrient management plan where available 1.3 Apply biosecurity requirements, guidelines and enterprise policies 1.4 Identify components of the production environment relevant to the enterprise and confirm with management on the work required for these components 1.5 Identify and assess work health and safety risks, and carry out suitable controls 1.6 Select, use and maintain suitable personal protective equipment
2. Check and maintain outdoor pig housing and infrastructure	2.1 Check pig housing, sheds or shelters and carry out maintenance or repair as required 2.2 Check outdoor facilities and infrastructure such as fencing, feeders and drinkers, and carry out maintenance or repair as required
3. Carry out manure, effluent and waste operations	3.1 Carry out removal, storage, treatment or spreading of manure and effluent appropriately 3.2 Remove waste and debris from production environment, and dispose of appropriately in line with enterprise environmental policies
4. Check and maintain production environmental conditions	4.1 Confirm nutrient, soil and water monitoring/test results with supervisor where applicable 4.2 Carry out maintenance work or mitigation measures to maintain or improve production environment 4.3 Carry out control measures for chemicals, gaseous emissions and odours where required
5. Complete records	5.1 Complete required documentation and records accurately and promptly as required 5.2 Report and provide feedback to management as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPRK402 Maintain outdoor pig production environment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify components of production environment and work required
- check and maintain outdoor pig housing and infrastructure
- carry out manure, effluent and waste operations
- check and maintain production environmental conditions
- complete records
- implement work health and safety policies
- implement biosecurity policies
- implement environmental policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant legislation, codes of practice, industry standards and guidelines for outdoor pig production environments
- characteristics, features and use of environment management plans and nutrient management plans
- regulatory requirements, codes of practice, guidelines, industry standards and enterprise policies for biosecurity
- components of outdoor pig production environment and their effects, impacts, maintenance programs, mitigation measures and protection measures
- relevant regulatory, industry and enterprise work health and safety requirements, codes of practice and standards
- types, functions, characteristics, cleaning and maintenance of relevant outdoor pig housing and production installations and equipment, such as fencing, feeders and drinkers

- requirements, methods and procedures for manure and litter removal and treatment
- types, characteristics, functions, operation and maintenance of effluent storage and treatment systems
- requirements, methods and procedures for waste removal and disposal
- significance, effects and control measures for chemicals, gaseous emissions and odours that impact on the production environment and surrounding community
- relevant documentation, records and reports that are required
- relevant environmental practices

Assessment Conditions

Competency is to be assessed in the workplace OR workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSAW201 Conduct erosion and sediment control activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to control erosion and sediment using earthworks construction and other land forming activities.

Construction is often carried out using a single earthmoving machine in varied conditions and terrains that requires the plant operator to develop skills that are unique to this sector.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work, they undertake defined routine activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soil and Water Conservation (SAW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Read work instructions relating to the activity and clarify purpose

Element	Performance criteria
	<p>and issues with the supervisor</p> <p>1.2 Prepare tools and equipment and use as instructed by supervisor</p> <p>1.3 Identify manual handling and other work health and safety hazards, tell supervisor and apply safe work practices to minimise risks</p> <p>1.4 Select personal protective equipment and clothing and ensure correct fit</p>
2. Conduct erosion and sediment control activities	<p>2.1 Identify erosion and sediment risks at a site and confirm with supervisor</p> <p>2.2 Assemble structures to prevent erosion and control sediment at site</p> <p>2.3 Carry out sediment control and maintenance activities</p> <p>2.4 Operate tools, machinery and equipment as instructed</p>
3. Complete work	<p>3.1 Dispose of or recycle soil and waste material from the site to minimise damage to the environment</p> <p>3.2 Clean, store and maintain all tools and equipment</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSAW201A Conduct erosion and sediment control activities

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSAW201 Conduct erosion and sediment control activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- conduct erosion and sediment control activities as instructed by a supervisor
- identify hazards and follow safe operating procedures
- identify erosion and sediment control structures, measures and practices
- carry out routine work with control measures and structures
- identify areas at risk of erosion
- operate or use machinery tools and equipment required for the tasks involved safely and efficiently

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the need for erosion and sediment control, including:
- the cost of erosion and sedimentation to the community
- the effect of loss of habitat
- how water quality is affected
- how soil erosion can cause loss of production, assets and amenities
- re-occurring maintenance, repair and monitoring requirements for controls
- agents and processes of erosion and sedimentation and ways to control them
- types of erosion and sediment control structures and techniques for constructing them
- role of vegetation in erosion control
- basic catchment issues
- characteristics of soils with an emphasis on erodible soils

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSAW301 Construct conservation earthworks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to use specialised earthmoving techniques to achieve fine tolerances in the construction of conservation earthworks.

Construction is often carried out using a single earthmoving machine in varied conditions and terrains that requires the plant operator to develop skills that are unique to this sector.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

Special vehicle licenses may apply to this unit, dependent on the type of machinery being used. Specific determination should be sought through the relevant State or Territory.

Pre-requisite Unit

Nil.

Unit Sector

Soil and Water Conservation (SAW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for	1.1 Confirm construction details and sequence

Element	Performance criteria
construction	1.2 Identify and locate worksite, site indicators and survey pegs according to maps and plans of the site 1.3 Confirm work readiness of machinery and equipment 1.4 Assess and minimise risks to others and the environment 1.5 Select and use appropriate personal protective equipment 1.6 Verify that equipment and attachments match terrain and program tasks
2. Carry out conservation earthworks construction work	2.1 Follow industry endorsed earthwork methods and patterns for specific machines 2.2 Monitor and maintain optimum machinery loads in accordance with prevailing conditions 2.3 Ensure that safe machinery operating techniques are deployed to match terrain, site conditions other operators and workers 2.4 Ensure that excavation, transport, dumping and compaction of material is conducted appropriately and according to enterprise, client and legislative requirements 2.5 Carry out work in accordance with work health and safety policies and procedures
3. Apply finishing techniques	3.1 Finish batters and surfaces 3.2 Retain site features and vegetation 3.3 Clear site and remove debris 3.4 Complete topsoiling of disturbed areas and surfaces
4. Finalise work	4.1 Complete work records 4.2 Clean, store and maintain machinery, tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSAW301A Construct conservation earthworks

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSAW301 Construct conservation earthworks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe operating procedures
- prepare for construction according to construction plans and enterprise requirements
- carry out planned earthworks, minimising damage to natural areas
- apply finishing techniques
- read maps and plans to identify and peg out construction sites
- identify work site, site indicators and survey pegs
- determine soil properties and types
- use specialist earthmoving equipment relevant to the task
- follow work health and safety policies and procedures in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- erosion and sediment control standards
- soils and soil formation
- principles of conservation earthwork construction and erosion and sediment control including:
 - catchment management and soils
 - earthmoving principles
 - levels and levelling
 - natural area protection (including topsoil) and rehabilitation
 - design
 - natural area protection (particularly topsoil) and rehabilitation principles
- types and application of personal protective equipment

- application of legislation and regulations relating to own role in conservation earthwork construction
- enterprise work health and safety procedures
- risk factors including human health and environmental damage
- environmental impacts and controls for constructing conservation earthworks

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSAW302 Implement erosion and sediment control measures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to construct, install and maintain a range of measures specified on erosion and sediment control plans.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soil and Water Conservation (SAW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for implementation and construction	1.1 Confirm that erosion and sediment control plan and schedule of works match site conditions 1.2 Identify survey pegs and site indicators on site 1.3 Match equipment and tools to program works and terrain on site 1.4 Verify work readiness of selected equipment and tools

Element	Performance criteria
	1.5 Assess and minimise risks to others and the environment 1.6 Select and use appropriate personal protective equipment 1.7 Select materials to complete proposed works in line with construction schedule
2. Carry out implementation and construction	2.1 Plan work sequence 2.2 Construct earthworks 2.3 Install erosion and sediment control products and materials
3. Carry out repairs and maintenance procedures	3.1 Monitor site, identify issues and carry out repairs as necessary 3.2 Complete maintenance procedures as required 3.4 Clean and store machinery, tools and equipment 3.5 Complete work records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSAW302A Implement erosion and sediment control measures

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSAW302 Implement erosion and sediment control measures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- construct, install and maintain a range of erosion and sediment control measures
- identify hazards and implement safe work procedures
- prepare for implementation and construction
- read and follow plans to carry out implementation and construction
- identify survey pegs and site indicators on site and on the plans
- carry out repairs and maintenance procedures to enterprise standards
- select equipment and materials appropriate for the task
- operate equipment and machinery according to safe work practices and manufacturer instructions
- clean and store equipment, machinery and tools according to organisational requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- materials cartage pollution control
- sequence of working and timing/duration
- work health and safety issues relating to the equipment and the site
- equipment used
- materials suitable for constructing erosion and sediment control measures and where to source them on site
- limitations of structures including timing of maintenance, structure life cycle, specifications and standards

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSAW401 Set out conservation earthworks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to set out standard structures using specialised pegging and marking techniques, for erosion and sediment control earthworks.

This unit applies to individuals who take responsibility for their own work and use discretion and judgement in the selection, allocation and use of available resources. This includes undertaking a range of routine and non-routine activities and work in known and changing contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soil and Water Conservation (SAW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Interpret plans and specifications	1.1 Determine overall plan in consultation with landholder and surveyor 1.2 Establish earthworks specifications in consideration of desired

Element	Performance criteria
	outcome and prevailing conditions 1.3 Verify plan in line with job requirements
2. Relate plan to site	2.1 Locate key plan points on site 2.2 Identify additional features on site plan 2.3 Identify and record site issues which affect survey and pegging
3. Peg project	3.1 Establish pegging sequence in consultation with the site surveyor 3.2 Measure site dimensions in compliance with job specification 3.3 Establish peg locations using prescribed methods 3.4 Peg earthworks in line with project specification 3.5 Advise all construction personnel of pegging and the need for site integrity

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSAW401A Set out conservation earthworks

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSAW401 Set out conservation earthworks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- set out conservation earthworks
- identify hazards and ensure the safety of self, field operators and any other person on site
- interpret plans and specifications
- relate plan to site
- measure out site dimensions precisely and peg project
- protect site

Knowledge Evidence

The candidate must demonstrate knowledge of:

- different types of survey equipment
- civil engineering and survey techniques applicable to conservation earthworks
- erosion control and design principles
- principles of native topsoil conservation and protection
- interpretation of plans and general and technical specification

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSAW403 Supervise implementation of conservation earthworks plans

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise the on-site implementation of earthworks designed to control erosion and sediment at a given site.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. This includes using discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soil and Water Conservation (SAW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan efficient implementation of erosion and sediment control works	1.1 Review plans and specifications and relate to the work site 1.2 Determine personnel and other resources required to undertake the work 1.3 Plan and record work sequences to meet with proposed work

Element	Performance criteria
	<p>schedule</p> <p>1.4 Identify the need for weed control and plan the use of chemicals</p> <p>1.5 Order materials to complete proposed works in line with construction schedule</p> <p>1.6 Identify potential regulatory planning and environmental impacts of the work and notify senior management</p> <p>1.7 Identify work health and safety hazards, assess risks and implement control measures</p>
2. Direct and monitor work	<p>2.1 Communicate clear instructions to plant operators to ensure work meets and maintains quality standards</p> <p>2.2 Provide on the job training for staff that require it</p> <p>2.3 Confirm the use of modified techniques to minimise the effect of site limitation in achieving job requirements</p> <p>2.4 Identify issues likely to cause delays or alter the scope of the work and record and report to senior management</p> <p>2.5 Inspect work periodically to confirm work outcomes are being achieved and adjust activity or plan if required</p> <p>2.6 Monitor safe machine operations to ensure they meet relevant work health and safety requirements</p> <p>2.7 Monitor the work site to ensure it is being kept in a clean and safe condition</p> <p>2.8 Monitor application of work health and safety, environmental sustainability and biosecurity practices</p> <p>2.9 Liaise with the media, community and special interest groups where required</p>
3. Complete work	<p>3.1 Inspect site prior to completion of work to confirm all work has been undertaken</p> <p>3.2 Note any work that does not comply with specifications and organise rectification work</p> <p>3.3 Supervise the maintenance of machinery and equipment</p> <p>3.4 Complete a report of work undertaken and forward to senior management</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCSAW402A Supervise on-site implementation of conservation earthworks. No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSAW403 Supervise implementation of conservation earthworks plans

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- supervise the implementation of conservation earthworks
- identify hazards and implement safe systems of work
- plan efficient implementation of works
- protect natural areas from damage
- direct the implementation of planned works
- monitor job specifications
- identify and address risks to achieving planned outcomes
- provide information to the media, community and special interest groups about work undertaken
- providing on the job training to staff where required
- ensure work health and safety policies and procedures are adhered to by all personnel and contractors on site
- monitor application of biosecurity measures and sustainability practices in work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- erosion and sediment control standards and principles
- natural area topsoil protection and rehabilitation principles
- supervision techniques
- erosion control and design principles
- sediment control principles
- earthmoving principles

- principles for machine operation
- work sequence knowledge
- equipment most suitable to the constructing of erosion and sediment control works
- quality assurance systems, processes and practices
- staff deployment, supervision and training
- application of work health and safety and environmental legislation, codes of practice and enterprise requirements to work site

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSAW501 Design control measures and structures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design erosion and sediment control measures and structures.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. This includes analysing, designing and communicating solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soil and Water Conservation (SAW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify measures or structures to be designed	1.1 Review the erosion and sediment control plan for technical accuracy and environmental impacts 1.2 Confirm adherence to regulations and legislation and note on works plans 1.3 Confirm budget constraints for project with management or client

Element	Performance criteria
	1.4 Apply design criteria in line with industry standards
2. Apply design procedures	2.1 Calculate catchment characteristics to required accuracy 2.2 Determine design specifications 2.3 Develop draft design for structure that meets budget constraints 2.4 Modify structure design in response to application of design procedures and accepted industry practices 2.5 Ensure design applies environmentally sustainable practices
3. Prepare specification schedule	3.1 Confirm that provided documentation aligns with the plan and follows industry standards 3.2 Confirm suitability of design specifications to comply with the category of work and legislative requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSAW501A Design control measures and structures

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSAW501 Design control measures and structures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- produce a design for erosion and sediment control measures and structures
- identify measures to be designed
- apply design procedures
- prepare specification schedule
- cost the project and provide recommendations in line with budget constraints
- use computer design programs
- determine design specifications using methods that meet industry standards
- develop design plan to meet client, organisational and regulatory requirements
- consult with management or client to confirm design meets requirements
- identify how the design applies sustainability principles

Knowledge Evidence

The candidate must demonstrate knowledge of:

- erosion control and design principles:
 - soils and soil formation
 - levels and levelling
 - earthmoving principles
 - total catchment issues
 - managing peak water flows
- subsurface and surface drainage principles and systems
- environmental issues related to the design
- the limitations of design aids provided for industry

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSAW502 Plan erosion and sediment control measures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop erosion and sediment control plans.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soil and Water Conservation (SAW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish suitability of development proposal	1.1 Compile data concerning suitability of development site 1.2 Note alterations or modifications to the development proposal and report to developer or consent authority 1.3 Establish compliance with relevant regulatory planning authority and environmental legislation

Element	Performance criteria
	1.4 Confirm development proposal meets erosion and sediment control guidelines
2. Develop erosion and sediment control strategy	2.1 Develop erosion control measures 2.2 Develop sediment control measures 2.3 Apply work health and safety and environmentally sustainable practices to strategy 2.4 Establish erosion and sediment control strategies and document in co-operation with the developer and relevant consent authority
3. Prepare an erosion and sediment control plan	3.1 Check selection criteria for earthwork structures or measures against industry guidelines 3.2 Develop erosion and sediment control plan, incorporating design specifications for structures 3.3 Confirm the erosion and sediment control plan and supporting documentation follow industry guidelines

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSAW502A Plan erosion and sediment control measures

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSAW502 Plan erosion and sediment control measures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a plan for erosion and sediment control measures that meets regulatory requirements and industry standards
- establish suitability of development proposal to location and environment
- prepare reports on erosion and sediment control plans to enterprise standards
- develop erosion and sediment control measures consistent with industry principles and selection criteria
- prepare an erosion and sediment control plan to industry standards and to comply with relevant regulatory planning authority

Knowledge Evidence

The candidate must demonstrate knowledge of:

- application of relevant environmental, planning and groundwater legislation in erosion and sediment control work
- planning process for erosion and sediment control
- erosion control and design principles:
 - soils and soil formation
 - levels and levelling
 - earthmoving principles
 - total catchment issues
 - how to manage peak water flows
 - subsurface and surface drainage principles and systems

- permits or consents potentially required for developing erosion and sediment control structures
- environmental issues related to erosion and sediment
- awareness of the limitations of design aids provided for industry
- work health and safety implications of implementing plans

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSAW503 Plan conservation earthworks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a conservation earthworks plan to control runoff to prevent soil erosion, safely store and distribute water, and rehabilitate eroded or disturbed areas.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. This includes analysing, designing and communicating solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soil and Water Conservation (SAW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish client needs	1.1 Consult with land holder regarding the proposed land use 1.2 Review and discuss the catchment characteristics with consideration of the proposed land use 1.3 Explain to the landholder how legislation and policies impact on

Element	Performance criteria
	<p>the project</p> <p>1.4 Determine budget constraints for the project</p> <p>1.5 Discuss the possible strategies with the landholder</p> <p>1.6 Confirm the proposed land use and agreed strategy with landholder in writing</p>
2. Develop the strategy to utilise earthworks	<p>2.1 Confirm property ownership and boundary by checking maps and titles</p> <p>2.2 Determine profile of catchment from survey and aerial photographs</p> <p>2.3 Develop earthworks concept that is consistent with industry principles and selection criteria</p> <p>2.4 Establish final water disposal points in line with proposed strategy</p> <p>2.5 Test proposed location of structures by survey and discuss with landholder</p> <p>2.6 Document preferred strategy</p>
3. Prepare a detailed works plan	<p>3.1 Apply selection criteria for earthwork structures or measures that align with industry standards</p> <p>3.2 Cost project and develop schedule for plan</p> <p>3.3 Communicate design of relevant structures with specific details to qualified designer</p> <p>3.4 Prepare and present plan and relevant documentation</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSAW503A Plan conservation earthworks

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSAW503 Plan conservation earthworks

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- produce a plan of conservation earthworks that meets client needs, conforms to industry standards and complies with legislation and policy requirements
- establish client needs through consultation
- carry out site investigations using surveys, aerial photographs and maps
- negotiate agreed project outcomes
- explain legislation and policies that may impact on the project to the landholder
- develop a strategy to protect natural areas consistent with industry principles and that comply with regulatory requirements
- develop the strategy to utilise earthworks consistent with industry principles and that comply with regulatory requirements
- prepare detailed project costing that meets client's budget
- prepare a detailed works plan
- communicate design requirements to designer to achieve desired outcomes

Knowledge Evidence

The candidate must demonstrate knowledge of:

- how relevant environmental, planning and groundwater legislation impacts on the development of conservation earthworks planning
- environmental, planning and earthwork construction standards and Codes of Practice relevant to planning conservation earthworks projects
- earthwork structures
- erosion control and design principles
- natural areas (particularly topsoil) protection and rehabilitation principles

- soils and soil formation
- levels and levelling survey plans and titles
- earthmoving principles
- total catchment issues
- land use and land development strategies
- environmental issues
- how to manage peak water flows
- subsurface and surface drainage principles and systems
- limitations of design aids provided for industry

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDP301 Undertake preparation of land for seed crop production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare land for seed crop production. It applies to workers on properties where commercial seed production is undertaken. Workers operate with some judgement and discretion and work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed production (SDP)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for cultivation	1.1 Confirm work requirements from the planting plan 1.2 Determine the method of cultivation from the planting plan

Element	Performance criteria
	1.3 Identify work health and safety hazards, assess risks and implement suitable controls 1.4 Select, use and maintain suitable personal protective equipment (PPE) 1.5 Identify environmental implications of cultivating the site, assess likely outcomes and take responsible action
2. Prepare the cultivating equipment	2.1 Clean and inspect vehicles, machinery and equipment according to certified seed production procedures 2.2 Service and adjust vehicles and equipment for the conditions and replace worn parts 2.3 Dispose of all containers, leftover fluids, waste and debris from the maintenance and servicing work 2.4 Record maintenance and servicing
3. Cultivate soil	3.1 Remove, incorporate or burn previous crop debris 3.2 Follow and complete the cultivation plan for each paddock 3.3 Select, use and maintain suitable personal protective equipment (PPE) 3.4 Operate vehicles and equipment in a safe, effective and efficient manner at speeds to suit the conditions 3.5 Ensure the quality of cultivation is maximised by continually checking and adjusting the vehicles and equipment as necessary 3.5 Meet all timelines, resource and quality requirements of the planting plan
4. Prepare site for planting	4.1 Complete the planting layout as required by the planting plan 4.2 Undertake weed and pest control as required 4.3 Apply fertilisers, ameliorants, and/or other pre-planting treatments as required 4.4 Identify the environmental implications of site preparation, assess likely outcomes and, if necessary, take responsible action
5. Complete land preparation operations	5.1 Clean and store machinery and equipment according to manufacturer specifications, organisational procedures and regulations 5.2 Dispose of all containers, leftover fluids, waste and debris from the cleaning and maintenance work 5.3 Complete all required records and documentation accurately and promptly

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDP301A Undertake preparation of land for seed crop production.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCS DP301 Undertake preparation of land for seed crop production

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for cultivation
- complete pre- and post-operational checks on tools, vehicles and equipment
- interpret production or planting plans
- produce standards, quality specifications and work procedure documents
- measure materials and site plan specifications
- cultivate soil in accordance with paddock cultivation plans
- service, operate, adjust and calibrate cultivation equipment safely
- complete records and documentation accurately and promptly

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for preparing land for seed crop production
 - pre-planting treatments, their purpose and method of application
 - environmental issues of cultivating soil for planting, such as drainage and irrigation systems, soil amelioration and waste disposal procedures
 - methods of cultivating a range of soil types
 - operation and maintenance of planting equipment
 - procedures and standards for certified seed
 - work health and safety guidelines, procedures and principles, including manual handling and exposure to hazardous substances

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDP302 Establish seed crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish seed crops. It applies to workers on properties where commercial seed production is undertaken. Workers operate with some judgement and discretion and work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed production (SPD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare machinery and equipment for use	1.1 Select and confirm machinery and equipment against the work plan and prepare to manufacturer specifications 1.2 Attach and calibrate equipment for operation

Element	Performance criteria
	1.3 Identify existing and potential work health and safety hazards in the workplace, assess and control risks
2. Prepare for seed crop establishment	2.1 Monitor soil and weather conditions for optimal seeding conditions 2.2 Recognise and confirm soil conservation and sustainable land management practices and procedures 2.3 Prepare, to seed certification specifications, seeding, fertiliser and pest and weed control requirements 2.4 Prepare contingency plans for unusual seasonal conditions
3. Sow the crop	3.1 Select, use and maintain suitable personal protective equipment 3.2 Undertake seeding and fertiliser applications 3.4 Coordinate pest and weed control treatment with seeding and fertiliser applications 3.5 Identify environmental implications associated with sowing operations, assess impacts and adopt procedures
4. Complete seeding operations	4.1 Maintain seeding, machinery and equipment operation records 4.2 Report machinery and equipment damage, malfunctions or irregular performance 4.3 Clean, secure and store machinery and equipment in line with manufacturer specifications and seed certification requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCS DP302A Establish seed crops.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCS DP302 Establish seed crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out sowing operation and fertiliser application
- carry out tillage and apply pre-planting treatments
- clean, secure and store machinery and equipment
- keep records of the sowing operation
- monitoring the environmental impacts of establishing the crop
- prepare and service machinery and equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of seed crop establishment
 - effects of weather conditions (normal and adverse) on seeding and fertilising applications
 - enterprise policies with regard to seeding operations, and recording and reporting routines
 - fertiliser types, rates of application and crop nutrient requirements
 - operating principles and operating methods for machinery and equipment
 - positive environmental practices, negative environmental impacts and minimisation measures associated with seeding operations
 - personal protective equipment (PPE) and when and how it should be used
 - pre-operational and safety checks, servicing and maintenance procedures for seeding machinery and equipment
 - principles of weight distribution with regard to load shifting and vehicle movement
 - procedures for cleaning, securing and storing machinery, equipment and materials

- record keeping for certified seed
- relevant state/territory legislation and regulations with regard to licensing requirements and the use and control of machinery and equipment
- relevant state/territory legislation, regulations and codes of practice with regard to workplace health and safety and the use and control of hazardous substances
- seed crop types, preparation of seeds, seeding methods and application techniques
- sustainable land management and soil conservation techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCDP303 Maintain seed crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain seed crops. It applies to workers on properties where commercial seed production is undertaken. Workers operate with some judgement and discretion and work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed production (SPD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Assess seed crop condition, growth and	1.1 Monitor crops to assess their condition and needs and report observations 1.2 Identify, monitor and report pests and diseases at nominated

Element	Performance criteria
requirements	threshold levels 1.3 Establish sites for regular measurement of soil moisture in consultation with directions 1.4 Use soil probe to measure moisture levels and soil water percentage calculated
2. Apply fertiliser and amendments	2.1 Identify work health and safety hazards, assess risks and implement suitable controls 2.2 Select, use and maintain suitable personal protective equipment (PPE) 2.3 Apply specialist sprays according to label directions and industry standards for growth stages 2.4 Carry out chipping or spot spraying as required 2.5 Assess, record and report crop growth stages 2.6 Apply water according to the identified need 2.7 Undertake all applications in the full consideration of adverse environmental impacts
3. Monitor crop condition, growth and requirements	3.1 Monitor crop maturity and report the possible need for further applications 3.2 Monitor the health of the crop and report deviation from expected growth and vigour 3.3 Report observations of crop ripening for the timing of harvest to be determined by contractors and property manager
4. Complete cleaning and hygiene operations	4.1 Clean equipment in accordance with certified seed procedures 4.2 Dispose of all containers, leftover fluids, waste and debris from the maintenance and servicing work 4.3 Complete records and documentation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCS DP303A Maintain seed crops.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCS DP303 Maintain seed crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- implement pest and disease control strategies
- monitor crops for levels of pests and diseases and moisture
- monitor the health and maturity of the crop
- complete records and documentation accurately and promptly

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of seed crop maintenance
 - appropriate legislative requirements, manufacturer's instructions and organisation procedures/instructions
 - contractor machinery cleanliness
 - environmental impacts associated with the operation of machinery and equipment in a harvesting context
 - general machine maintenance procedures
 - hygiene requirements for agricultural crops and equipment that comes into contact with the crop
 - machinery operating principles and safe operating methods
 - organisation recording and reporting procedures
 - potential hazards associated with the operation of basic tools and equipment
 - signs of pest and disease infestation (such as bacterial wilt in lucerne), moisture stress and nutrient deficiencies
 - symptoms of crop lacking health and vigour

- types and uses of herbicides, insecticides and other pesticides and alternative pest control methods (non-chemical)
- work health and safety and pesticides legislative and enterprise requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDP304 Harvest seed crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to harvest seed crops. It applies to workers on properties where commercial seed production is undertaken. Workers operate with some judgement and discretion and work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed production (SPD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to harvest seed crops	1.1 Confirm harvest requirements 1.2 Identify work health and safety hazards, assess risks and implement risk controls for the harvesting operation

Element	Performance criteria
	1.3 Select, use and maintain personal protective equipment (PPE) 1.4 Identify the environmental impacts of harvesting the crop and take action 1.5 Sample crop for moisture content to assess timing of harvest 1.6 Identify from the harvest strategy or the crop storage plan the hygiene standards for the crop and the paddock
2. Prepare the harvesting equipment	2.1 Clean harvesting machinery and other equipment of pests and other contaminants to maintain crop and paddock hygiene standards 2.2 Assess machinery and equipment for reliability 2.3 Service, adjust and replace parts of machinery and equipment for harvesting conditions 2.4 Dispose of all containers, leftover fluids, waste and debris from the maintenance and servicing work 2.5 Document all maintenance and servicing according to the requirements of the organisation
3. Harvest crops	3.1 Follow and complete the harvest strategy for each paddock 3.2 Operate harvesting machinery at speeds to suit crop conditions 3.3 Maintain the hygiene of all surfaces that come into contact with the crop 3.4 Check and adjust the harvester height and other settings 3.5 Take fire prevention measures as described in the harvest strategy
4. Complete harvesting operations	4.1 Clean equipment in accordance with manufacturer's specifications, organisational procedures and regulations 4.2 Clean and store attachments and other ancillary equipment according to manufacturer's specifications and regulations 4.3 Apply insecticides as required by the harvest strategy 4.4 Dispose of all containers, leftover fluids, waste and debris from the maintenance and servicing work 4.5 Move harvesting equipment in compliance with legislation that includes hygiene requirements 4.6 Complete all required records and documentation accurately and promptly

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDP304A Harvest seed crops.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCS DP304 Harvest seed crops

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- complete pre and post operational checks on tools, harvesting machinery and equipment
- handle and manoeuvre harvesting equipment
- monitor efficiency of harvesting equipment and make adjustments to height and other settings
- perform routine safety, service and maintenance procedures on tools, harvesting machinery and equipment
- sample crops to assess moisture content and maturity/ripeness of the crop
- transport, clean and store harvesting equipment
- complete records and documentation accurately and promptly

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of seed crop harvesting
 - appropriate legislative requirements, manufacturer's instructions and organisation procedures/instructions
 - certified seed procedures
 - environmental impacts associated with the operation of machinery and equipment in a harvesting context
 - fire prevention strategies
 - general machine maintenance procedures
 - hygiene procedures for harvesting machinery and equipment
 - machinery operating principles and operating methods

- organisation moisture and hygiene requirements for the crop and equipment that comes into contact with the crop such as bins, augers, trucks and harvesters
- organisation recording and reporting procedures
- pests and signs of pest infestation in the crop
- potential hazards and safe operating procedures for basic tools and equipment
- pre-operational and safety checks, servicing and maintenance procedures for tools and equipment
- requirements for harvesting machinery and equipment transport
- safe operating procedures and standards for harvesting and ancillary equipment
- seed quality and the impact of harvesting practices (such as on lucerne seed)

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDP401 Plan a seed crop establishment program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan a seed crop establishment program. It applies to workers on properties where commercial seed production is undertaken.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed production (SPD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine requirements of the	1.1 Determine paddock suitability for a seed crop from its history 1.2 Identify species and cultivars that meet production needs, cost the

Element	Performance criteria
seed crop establishment program	required quantity and confirm availability with suppliers 1.3 Determine crop establishment procedures 1.4 Plan post-planting care according to production needs, enterprise standards and site capabilities 1.5 Identify and plan for plant germination and nutrient requirements taking account of soil characteristics 1.6 Cost resources, equipment and machinery required for planting and post-planting care and confirm availability 1.7 Identify work health and safety hazards associated with the crop establishment program, assess risks and develop controls
2. Prepare and document the seed crop establishment program	2.1 Prepare plans based on the crop establishment program and production requirements 2.2 Produce plan which can be readily understood by personnel 2.3 Develop and communicate procedures and schedules for the planting and post-planting care 2.4 Plan for contingencies and identify alternative strategies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDP401A Plan a seed crop establishment program.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCS DP401 Plan a seed crop establishment program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess site factors
- determine resources and equipment for planting and post-planting care
- identify threats to pasture establishment including weeds, pests and diseases
- select suitable pasture species and cultivars

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for planning seed crop establishment
 - environmental impacts of seed crop establishment
 - establishment techniques of specific seed crop species and cultivars
 - maintenance requirements and practices for specific seed crop species and cultivars after initial establishment
 - planning process, including costing and scheduling of works
 - plant identification of seed crops and weed species
 - role of crops in sustainable land use
 - seed crop varieties and their characteristics, requirements and production potential
 - seed production contracts
 - the advantages and disadvantages of seed crop establishment procedures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDP402 Supervise seed crop establishment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise seed crop establishment. It applies to workers on properties where commercial seed production is undertaken.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed production (SPD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare planting plan	1.1 Determine from the organisation's production plan the seed crop and method of planting to be used

Element	Performance criteria
	<p>1.2 Assess and calculate the resources required for the planting operations from the area to be sown, the method of planting to be used, and the available timelines</p> <p>1.3 Set the target dates for planting, including the sequencing for planting across paddocks or crop areas, in line with the overall production/management planning for the organisation</p> <p>1.4 Select and organise the chemical applications required pre- and post-planting to occur at an appropriate time</p> <p>1.5 Prepare the plan to ensure that any potential detrimental environmental impacts are minimised or eliminated, including the proper disposal of containers, drums and other waste</p> <p>1.6 Identify and assess Occupational Health and Safety (OHS) hazards</p> <p>1.7 Implement and oversee staff carrying out safe work practices for planting</p> <p>1.8 Seek, identify and obtain any approvals required for the planting operations</p> <p>1.9 Determine measurable indicators, specifications and targets, based on the production/management plan and the method, resources, and seed to be used</p>
2. Determine scheduling and key responsibilities	<p>2.1 Determine scheduling for planting, taking into consideration the range of geographic and resourcing factors, as well as operations that will be occurring at the same time as the planting</p> <p>2.2 Determine the key responsibilities for specific preparatory processes that are required before planting</p> <p>2.3 Determine key responsibilities for specific implementation processes</p> <p>2.4 Determine and put in place recordkeeping requirements and procedures to ensure compliance with the range of applicable regulations</p> <p>2.5 Clearly document the plan, including scheduling and key responsibilities relating to the type, format, frequency and detail of any reporting required by both managers and operators</p>
3. Monitor and adjust the planting plan	<p>3.1 Adhere to monitoring points outlined in the implementation plan</p> <p>3.2 Carry out checks to ensure that OHS procedures are being observed and followed</p> <p>3.3 Carry out checks to ensure that the site environmental requirements are being observed and followed</p> <p>3.4 Communicate regularly with operational staff and contractors to ensure smooth operation and progress</p> <p>3.5 Carry out checks to ensure that the documentation required by the organisation, or other regulating bodies, is completed clearly and</p>

Element	Performance criteria
	accurately during the progress of the planting process 3.6 Initiate and take action where any corrective action or amendment to the planting plan is required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDP402A Supervise seed crop establishment.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCS DP402 Supervise seed crop establishment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine planting scheduling for planting and the key responsibilities for preparatory and implementation processes
- carry out pest, weed and disease control either pre- or post-planting if required
- identify the seasonal conditions which affect crop establishment
- plan the planting operation including timing and resources required
- supervise staff and monitor the planting operation
- monitor the planting operation
- adjust the planting plan

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for supervising seed crop production
 - crop establishment requirements
 - environmental controls and codes of practice applicable to the enterprise
 - equipment servicing requirements
 - integrated pest and weed management techniques
 - legislation, codes of practice and enterprise procedures for workplace health and safety and environmental management
 - management practices and processes to minimise environmental impacts such as noise, soil degradation and debris from planting operations
 - Plant Breeder's Rights and open market seed

- the equipment that is required for a range of tillage methods, and pest and weed control prior to planting

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDP403 Plan and implement seed crop maintenance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and implement seed crop maintenance. It applies to workers on properties where commercial seed production is undertaken.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed production (SPD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine condition of seed crops	1.1 Calculate soil water percentage from an assessment of soil moisture

Element	Performance criteria
	1.2 Calculate water requirement according to soil analysis data, standing crop and forecast weather conditions 1.3 Assess nutrient requirements and availability for crops and identify deficiencies 1.4 Identify factors affecting crop capacity 1.5 Implement sustainable land management
2. Determine pest control	2.1 Assess evidence of pests and disease and determine integrated control measures appropriate to type and species of infestation 2.2 Locate areas of weed infestation and identify species 2.3 Select integrated control methods to control pests and weeds 2.4 Schedule control methods at the optimum time 2.5 Record severity of infestations and keep treatment records
3. Manage crop health	3.1 Maintain crop water and nutritional requirements 3.2 Monitor the weed and pest control program and modify as required 3.3 Assess benefits from soil and plant inputs and treatments and document for analysis in future management programs 3.4 Monitor cropping programs for efficiency and effectiveness and document for future best practice 3.5 Document relevant data for continual analysis and effective crop management

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDP403A Plan and implement seed crop maintenance.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCS DP403 Plan and implement seed crop maintenance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess crop needs
- carry out crop cultural practices and treatments
- determine time of harvest with specialist advice
- determine water requirements from survey advice and weather forecasts
- measure soil moisture and interpret data
- monitor and assess crop maturity

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of seed crop maintenance
 - chemical use if applicable
 - crop growth requirements compared to soil nutrient status
 - crop growth stages and keys
 - factors leading to development of chemical resistance
 - fertiliser and soil ameliorant types and application times, methods and rates
 - integrated pest management strategies
 - legislation and codes of practice with regard to environmental protection
 - life-cycles of pest, diseases and weeds
 - relevant codes of practice with regard to the use and control of hazardous substances
 - work health and safety legislative requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDP404 Supervise seed crop harvesting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise seed crop harvesting. It applies to workers on properties where commercial seed production is undertaken.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed production (SPD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for harvesting	1.1 Assess crop maturity and quality for harvesting 1.2 Inspect harvesting machinery for seed contaminants and ensure

Element	Performance criteria
	machinery clean downs have been done 1.3 Obtain machinery licences or permits as required 1.4 Assess insurance requirements and plan and implement risk management strategies as required
2. Determine harvest strategy	2.1 Assess crop maturity to determine best time to harvest 2.2 Determine resource requirements based on estimated crop size 2.3 Organise labour and equipment to carry out harvesting operations 2.4 Determine fire prevention and control requirements
3. Coordinate the harvest strategy	3.1 Ensure effective communication strategies for smooth workflow and personnel safety 3.2 Implement and adjust harvesting operations according to weather, equipment and staff requirements 3.3 Coordinate equipment operations for maximum efficiency and monitor for performance effectiveness 3.4 Identify and control existing and potential hazards
4. Complete harvest operation	4.1 Locate storage resources for efficient operations and identify strategies for drying grain if necessary 4.2 Monitor quality of grain for moisture content according to grain classification standards 4.3 Evaluate harvesting operations and outcomes against harvest strategy 4.4 Document relevant information for analysis and effective planning

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCS DP404A Supervise seed crop harvesting.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCS DP404 Supervise seed crop harvesting

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- arrange storage and delivery requirements
- assess crop maturity and quality in readiness for harvesting
- establish strategies, procedures and controls for crop harvesting, including fire prevention and control plans
- estimate crop yields
- maintain budgetary controls
- negotiate and arrange contracts and agreements
- segregate grain for quality and monitor for moisture content

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of seed crop harvesting
 - crop maturity and yield potential
 - crop measurement techniques and parameters
 - environmental controls and codes of practice applicable to harvesting operations
 - functions and limitations of harvesting equipment
 - grain or seed quality
 - hygiene requirements for certified seed
 - location and relative skills and abilities of available contractors
 - market information and sources
- relevant legislation, codes of practice and enterprise requirements for work health and safety, contractor engagement, environment and pesticides

- supervisor responsibilities in managing the safety of a workplace
- weather conditions which may affect the harvest

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDP405 Inspect a seed crop for quality assurance purposes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake a field inspection and prepare a report on a commercial seed production crop. It applies to workers on properties where commercial seed production is undertaken.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed production (SPD)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for field inspection	1.1 Research paddock history and crop type before inspection 1.2 Determine inspection date according to suitable crop growth stage

Element	Performance criteria
	and related activities 1.3 Arrange a suitable time for crop inspection with grower 1.4 Check and prepare vehicle, machinery, equipment and recording materials before undertaking crop inspection
2. Undertake a visual analysis of a commercial seed crop	2.1 Identify weed species visually and record weed counts or density 2.2 Inspect visually and record insect/disease damage 2.3 Inspect visually and record the varietal identity of crop 2.4 Inspect visually and record varietal purity of crop, i.e. the presence of off-types 2.5 Estimate yield by counting crop plants using a quadrat or rule
3. Complete an inspection report	3.1 Document and analyse results of visual inspection 3.2 Determine the quality and suitability of the crop for commercial and/or regulatory production 3.3 Record the determination in a crop inspection report and forward to relevant parties
4. Complete decontamination procedure prior to leaving site	4.1 Check and clean vehicles, machinery and equipment of seeds, soil and other contaminants 4.2 Check and clean clothing and footwear of seeds, soil and other contaminants 4.3 Dispose of contaminants and other foreign materials

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDP405A Inspect a seed crop for quality assurance purposes.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDP405 Inspect a seed crop for quality assurance purposes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for a field inspection
- visually analyse a commercial seed crop
- complete a crop inspection report
- classify seed to species and/or variety level
- update seed reference collection
- use taxonomic terms to describe seed
- carry out decontamination prior to leaving a site

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of seed crop inspection
 - concepts of disease pressure
 - concepts of pest pressure
 - crop sampling techniques and use of quadrats
 - crop/seed certification systems for example Organisation for Economic Co-operation and Development (OECD), Australian Seed Authority (ASA)
 - field inspectors reports
 - hygiene requirements for crop inspectors
 - plant breeders' rights
 - relevant health, safety and environment requirements
 - requirements of Australian Quarantine Inspection service (AQIS) and AQIS Authorised Officers (AAO) phytosanitary reports

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT301 Prepare a working sample

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to obtaining a working sample from a seed sample submitted for testing. It applies to seed analysts working within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Receive submitted sample	1.1 Receive submitted sample and verify with submitted documentation 1.2 Notify supervisor if type, condition or quantity of sample is unsatisfactory

Element	Performance criteria
	1.3 Check paperwork and complete labelling and data entry 1.4 Prepare submitted sample for testing as soon as practicable 1.5 Handle submitted sample and, if necessary, store under optimum species specific conditions
2. Reduce sample	2.1 Check working area and equipment for cleanliness 2.2 Reduce submitted sample to equal or greater than the required working sample size 2.3 Undertake sample reduction using prescribed apparatus and methods 2.4 Use mechanical dividers where appropriate 2.5 Present working sample for testing 2.6 Complete labelling and records
3. Store working sample after testing	3.1 Check and verify records and labels for tested samples before storing 3.2 Handle samples according to enterprise guidelines where live insects have been detected before storage 3.3 Store samples after testing in environmental conditions that minimise changes in seed quality traits

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT301A Prepare a working sample.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT301 Prepare a working sample

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- obtain a working sample from a seed sample submitted for testing
- receive submitted samples
- reduce samples
- store submitted and working samples after testing

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise standard operating procedures (SOPs)
- mechanical dividers and their applications
- procedures for obtaining working samples for different tests
- relevant work health, safety and environment requirements
- sample reduction methods and apparatus
- seed handling and storage
- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT302 Identify seeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recognise and identify seeds and contribute samples to the seed reference collection. It applies to seed analysts working within enterprise requirements and procedures.

It applies to individuals who take responsibility for their work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for seed identification	1.1 Confirm seeds requiring identification 1.2 Prepare resources and equipment for use in identification 1.3 Identify, select and prepare for use, processes for seed identification

Element	Performance criteria
2. Identify seed	2.1 Identify specified seeds according to their general characteristics 2.2 Record botanical name of seed to species level where possible 2.3 Seek advice when necessary and where appropriate to confirm identification
3. Update the reference collection	3.1 Consult supervisor about possible addition to the reference collection 3.2 Document information and add the seed to the reference collection if appropriate

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT302A Identify seeds.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT302 Identify seeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for seed identification
- recognise or identify seed to genus and, where possible, species level
- contribute to enterprise seed reference collection

Knowledge Evidence

The candidate must demonstrate knowledge of:

- binomial nomenclature
- concepts of seed identification
- enterprise and/or legal traceability requirements
- enterprise standard operating procedures (SOPs)
- relevant work health, safety and environment requirements
- seed identification techniques
- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT303 Perform a fluorescence test on seeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to perform tests that determine the presence of seeds of annual ryegrass species in seedlots of perennial ryegrass. It applies to seed analysts working within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for a fluorescence test	1.1 Identify seed to be tested and complete records 1.2 Prepare working sample from submitted sample 1.3 Prepare the required number of replicates of 100 seeds 1.4 Prepare substrate as prescribed for a germination test using

Element	Performance criteria
	dormancy breaking treatments if necessary 1.5 Place replicates in a germination cabinet/room
2. Assess germinated seeds	2.1 Count off and record all un-germinated seeds and abnormal seedlings 2.2 Examine normal seedlings under ultra violet light 2.3 Count off and record normal seedlings that have fluorescent roots under ultra violet light 2.4 Count off and record normal seedlings that do not have fluorescent roots under ultra violet light 2.5 Minimise exposure of bare skin to ultra violet light 2.6 Complete enterprise worksheet
3. Maintain a safe work environment	3.1 Record, calculate and report results of test 3.2 Collect and dispose of laboratory and hazardous waste safely 3.3 Clean and store apparatus and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT303A Perform a fluorescence test on seeds.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT303 Perform a fluorescence test on seeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for a fluorescence test
- assess seedlings using ultra violet light
- count and record test results
- prepare replicates from working sample
- test to determine the presence of seeds of annual ryegrass species in perennial ryegrass seedlots
- maintain a safe work environment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise and/or legal traceability requirements
- enterprise standard operating procedures (SOPs)
- fluorescence testing procedures
- relevant work health, safety and environment requirements
- seed biology
- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT304 Perform a seed purity analysis

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to test the analytical purity of seed in a working sample to infer the composition of a seed lot. It applies to seed analysts working within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for a purity test	1.1 Identify samples, test methods and equipment to perform the test 1.2 Clean and calibrate equipment and working spaces 1.3 Prepare a working sample using mixing and dividing processes 1.4 Check and record sample details on worksheets and sample

Element	Performance criteria
	packets
2. Assess working samples	2.1 Separate the working sample into its component parts using appropriate equipment 2.2 Separate pure seed using visual characteristics, mechanical or pressure aids appropriate to the type of seed 2.3 Handle seeds carefully so as not impair their capacity for germination 2.4 Weigh separated component parts and matter to the number of decimal places required by enterprise guidelines 2.5 Identify contaminant seeds
3. Process and interpret data	3.1 Add and compare weights of all components' parts with original working sample weight 3.2 Undertake a retest if required 3.3 Refer to a supervisor seeds that cannot be identified 3.4 Calculate the percentage weight of various component parts to one decimal place 3.5 Add percentages of all fractions together and round to 100% 3.6 Report results of test

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT304A Perform a seed purity analysis.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT304 Perform a seed purity analysis

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare a working sample
- report percentages of component parts
- round off calculations to enterprise requirements
- separate a working sample into component parts
- test the analytical purity of seed to infer the composition of a seed lot

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise and/or legal traceability requirements
- enterprise standard operating procedures (SOPs)
- materials and apparatus used in seed purity tests
- relevant work health, safety and environment requirements
- seed biology
- seed identification
- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT305 Perform a seed moisture test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to determination of the moisture content of seeds by an oven method for routine use. It applies to seed analysts working within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for testing	1.1 Check submitted sample is in an intact, moisture-proof container with as much air as possible excluded 1.2 Select appropriate apparatus for seed moisture testing 1.3 Equilibrate temperature of submitted sample to that of the testing

Element	Performance criteria
	laboratory 1.4 Reduce exposure of sample to the atmosphere of the laboratory to an absolute minimum, according to the species and ISTA requirements
2. Prepare samples for drying	2.1 Mix submitted sample thoroughly 2.2 Take a minimum of three subsamples and combine to form a working sample of the required size 2.3 Limit exposure to air to thirty seconds during sample reduction 2.4 Where cutting or grinding is required, prepare one working sample so that two replicates can be drawn from the cut/ground material 2.5 Undertake pre-drying where moisture content exceeds International Seed Testing Association (ISTA) requirements 2.6 Weigh containers and lids before and after filling 2.7 Ensure weighing procedures conform with ISTA requirements and express weight in grams to at least three decimal places 2.8 Keep lids on containers until samples are placed in oven
3. Dry and weigh sample	3.1 Distribute working sample evenly over the surface of the container 3.2 Rapidly place open containers and their lids into an oven maintained at the required temperature for the species being tested 3.3 Commence drying period once oven returns to the required temperature after placement of containers 3.4 Replace lids before cooling to ambient temperature in desiccators at the end of prescribed drying period 3.5 Weigh the containers with lids and dried contents after cooling
4. Calculate results	4.1 Express moisture content as a percentage of the weight of the original sample 4.2 Report result of test

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT305A Perform a seed moisture test.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT305 Perform a seed moisture test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- calculate weights and percentages
- cut and grind seeds
- determine the moisture content of seeds for routine use by an oven method
- prepare working samples
- weigh containers and seed samples
- calculate and report results

Knowledge Evidence

The candidate must demonstrate knowledge of:

- apparatus used in seed moisture testing
- enterprise and/or legal traceability requirements
- enterprise standard operating procedures (SOPs)
- relevant health, safety and environment requirements
- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT306 Perform a seed germination test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to performing germination tests on a seed sample under laboratory conditions. It applies to seed analysts working within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Interpret and schedule test requirements	1.1 Identify seeds to be germinated, test methods and equipment 1.2 Recognise hazards and enterprise control measures associated with the sample, seed pre-treatment, test methods, reagents and/or equipment

Element	Performance criteria
	1.3 Plan work sequences
2. Prepare materials for test	2.1 Draw prescribed number of replicates 2.2 Select and prepare growing media 2.3 Pre-treat seed to break physiological dormancy where necessary 2.4 Check water quality and pH is within required tolerances 2.5 Check and prepare apparatus and equipment for germinating seeds
3. Plant and maintain seeds	3.1 Plant seed on or into selected media 3.2 Monitor temperature and light conditions of germination apparatus in accordance with test procedures
4. Evaluate test results	4.1 Categorise seedlings and count as normal or abnormal 4.2 Assess un-germinated seed as hard, fresh or dead 4.3 Assess other determinations for un-germinated seed if required 4.4 Record and report results
5. Maintain a safe work environment	5.1 Use safe work practices and personal protective equipment (PPE) 5.2 Minimise wastes and environmental impacts 5.3 Collect and dispose of laboratory and hazardous waste 5.4 Clean and store equipment and reagents

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT306A Perform a seed germination test.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT306 Perform a seed germination test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- Prepare for seed germination testing
- assess seed germination
- perform germination tests on a seed sample under laboratory conditions
- prepare growing media
- record and report test results

Knowledge Evidence

The candidate must demonstrate knowledge of:

- assessment of germination and determining need for retesting
- calculations, tolerances and rounding results
- enterprise and/or legal traceability requirements
- enterprise standard operating procedures (SOPs)
- relevant health, safety and environment requirements
- seed biology
- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT307 Perform a 'Determination of Other Seeds by Number' test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to estimate the number of other species of seeds either generally (e.g. all other species) or by reference to one category or species of seed. It applies to seed analysts working within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare a working sample	1.1 Identify seed to be tested and complete records 1.2 Prepare a working sample from submitted sample

Element	Performance criteria
	1.3 Ensure that size of working sample conforms with International Seed Testing Association (ISTA) rules 1.4 Select the extent of determination of other species based on client requirements, seed quantity or seed characteristics
2. Examine seeds in working sample	2.1 Search working sample for seeds of all other species or of certain stated species as required 2.2 Count number of seeds found for each species
3. Calculate results	3.1 Express result as the number of seeds belonging to each stated species or category found in the quantity examined 3.2 Calculate the number of seeds per unit weight 3.3 Express result as total number of seeds found in total weight examined where two or more tests are carried out 3.4 Make comparison of result with other determinations in the same or in a different laboratory
4. Report results	4.1 Report result under 'other determinations' 4.2 Record actual weight of seed examined 4.3 Record the scientific name and number of seeds of each species sought and found in the actual weight of seed examined 4.4 Record the extent of other species of seed

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT307A Perform a 'Determination of Other Seeds by Number' test.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT307 Perform a 'Determination of Other Seeds by Number' test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare a working sample
- examine seeds in working sample
- estimate the number of seeds of other species generally or by reference to one category or species of seed
- calculate test results
- report test results

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise and/or legal traceability requirements
- enterprise standard operating procedures (SOPs)
- relevant health, safety and environment requirements
- seed biology
- seed identification
- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT401 Maintain a quarantine approved laboratory

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain and monitor a quarantine-approved laboratory that meets Department of Agriculture (DA) certification.

It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Interpret and communicate quarantine	1.1 Keep and update information on quarantine requirements impacting on laboratory 1.2 Distribute clear information on the responsibilities of individuals

Element	Performance criteria
requirements	to maintain the laboratory's quarantine compliance 1.3 Explain to all personnel the implications of non-compliance within the laboratory
2. Ensure that work practices are compliant	2.1 Plan work practices to ensure compliance 2.2 Implement testing procedures so that methods and equipment are fit for purpose 2.3 Implement systems to ensure the accuracy and/or efficiency of equipment 2.4 Coach and mentor team members to manage their responsibilities around maintaining quarantine compliance in the laboratory
3. Monitor, analyse, adjust and report performance	3.1 Identify, rectify and report actual and potential problems with quarantine compliance 3.2 Minimise potential non-compliance through on-going analysis and supervision activities 3.3 Advise laboratory personnel of strategies to improve compliance 3.4 Communicate new and improved procedures to laboratory personnel 3.5 Maintain systems, records and reporting procedures according to DA requirements
4. Investigate, rectify and report non-conformance	4.1 Investigate and manage incidents and occurrences of non-compliance 4.2 Provide on and/or off job training for laboratory personnel to acquire and apply competencies to meet compliance 4.3 Redesign or adjust work practices to ensure that non-compliance is not repeated

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT401A Maintain a quarantine approved laboratory.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT401 Maintain a quarantine approved laboratory

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- maintain and monitor a quarantine approved laboratory that meet Department of Agriculture (DA) certification
- initiate appropriate action to rectify potential problems or instances of non-compliance
- keep required records complete, current and secure as required by DA
- design and negotiate changes to work processes and procedures to meet DA compliance
- provide coaching and mentoring support to laboratory personnel to change work practices
- provide information to laboratory staff on DA compliance

Knowledge Evidence

The candidate must demonstrate knowledge of:

- DA requirements for a quarantine approved laboratory
- compliant laboratory systems, records and reporting procedures
- enterprise standard operating procedures (SOPs)
- relevant health, safety and environment requirements
- statutory and legal compliance requirements
- coaching and mentoring strategies

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT402 Prepare and maintain a seed reference collection

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and maintain a seed reference collection that can be used in the identification of seeds and which enables the quality control of laboratory procedures. This unit does not include the identification of seeds.

It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Acquire responsibility	1.1 Review standard operating procedures for maintaining a seed

Element	Performance criteria
for a seed reference collection	reference collection 1.2 Check existing seed reference materials to ensure labels and records are up to date 1.3 Confirm procedures for introducing new seeds to the collection 1.4 Establish record keeping and staff access arrangements
2. Maintain a seed reference collection	2.1 Review storage conditions to ensure that they comply with SOPs 2.2 Monitor storage conditions to ensure specimens remain in good condition 2.3 Update collection and records as new seeds are added 2.4 Advise management of indicators of deterioration of seeds in collection
3. Update the reference collection	3.1 Update reference collection as new seeds are identified and identification has been appropriately verified 3.2 Document information about seed specimen and add to the reference collection 3.3 Source new verified specimens as required to maintain currency and relevance of the collection
4. Provide seed reference materials on request	4.1 Provide seed reference material with action taken to prevent contamination 4.2 Verify external requests for access to the seed reference collection and seek approval before being processed 4.3 Maintain records of access to collection and removal of seeds from collection
5. Maintain a safe work environment	5.1 Observe safety and biosecurity protocols when handling and processing seed reference materials 5.2 Dispose of redundant, diseased and outdated seed safely and appropriately

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT402A Prepare and maintain a seed reference collection.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT402 Prepare and maintain a seed reference collection

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- communicate with clients and others
- keep workplace records
- prepare, maintain and update a seed collection for the identification of seeds
- source new materials

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise Standard Operating Procedures (SOPs)
- quarantine and isolation procedures
- relevant health, safety and environment requirements
- seed biology
- seed reference collections - what they are, when and why they should be used
- storage requirements of different seed varieties
- taxonomic nomenclature

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT403 Perform an Anguina test on annual ryegrass seed

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to test annual ryegrass seed for nematode gall (*Anguina spp.*).

It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for <i>Anguina</i> testing	1.1 Review test request to identify samples to be tested, required test methods, equipment and staff to be involved in the test 1.2 Clean and calibrate equipment and working space

Element	Performance criteria
	1.3 Prepare the working sample or sub-samples using mixing and dividing processes 1.4 Record sample details on worksheets and sample packets
2. Inspect seed samples	2.1 Inspect a prescribed sample weight of ryegrass seed on a diaphanoscope for the presence of galls 2.2 Separate any galls present into yellow and black galls, count and report separately
3. Examine galls	3.1 Soak galls in water for prescribed period 3.2 Dissect galls and examine under a microscope for the presence of nematodes 3.3 Record the presence of nematodes
4. Report results	4.1 Review testing procedures carried out by analysts 4.2 Issue a report of 'no galls found' where no galls are found on the prescribed weight of seed 4.3 Report as 'number of galls per sample weight' where galls containing nematodes have been detected

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT403A Perform an Anguina test on annual ryegrass seed.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT403 Perform an Anguina test on annual ryegrass seed

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify galls on ryegrass seed
- inspect seed samples using a diaphanoscope
- plan and delegate testing tasks
- use a microscope to detect nematode gall (*Anguina spp.*)

Knowledge Evidence

The candidate must demonstrate knowledge of:

- basic nematode identification
- enterprise standard operating procedures (SOPs)
- recording and reporting protocols
- relevant health, safety and environment requirements
- seed biology

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT404 Develop and implement laboratory policy and procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and implement workplace policies and procedures in a seed testing laboratory, including modifying policy to suit changed circumstances.

It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and who demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop workplace	1.1 Define scope of policy and procedures

Element	Performance criteria
policy and procedures	1.2 Identify and consult stakeholders as a key component of the development process 1.3 Review operational strategies relevant to all stages of work covered by the policy 1.4 Propose recommendations for policy and procedures options based on likely effectiveness, timeframes and cost 1.5 Reflect the organisation's purpose and operational goals in the policy and procedures 1.6 Seek agreement on implementation strategy
2. Communicate the policy	2.1 Promote the policy and procedures and the expected outcome to key stakeholders 2.2 Assign the expected outcomes, activities to be undertaken and responsibilities and inform those involved in implementing the policy and procedures
3. Implement the policy	3.1 Develop and communicate processes to help implement the policy and procedures 3.2 Establish record system for tracking adoption of policy and procedures
4. Review policy implementation	4.1 Provide outcomes and feedback to key personnel and stakeholders 4.2 Identify issues and non-conformances that may require remedial action 4.3 Investigate success or otherwise of policy and procedures 4.4 Modify policy and/or procedures as required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT404A Develop and implement laboratory policy and procedures.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT404 Develop and implement laboratory policy and procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop and implement workplace policies and procedures
- modify policy to suit changed circumstances
- monitor and analyse effectiveness of policy and procedures
- prepare strategies for communicating and implementing policy and procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise standard operating procedures (SOPs)
- equal employment opportunity, equity and diversity principles and occupational health and safety implications of policy/s being developed
- legislation, protocols and rules impacting on the laboratory workplace
- relevant policy and procedure development and implementation processes
- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT405 Handle and store quarantinable seeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to store and handle seeds subject to quarantine or isolation in accordance with laboratory procedures and in compliance with Australian Department of Agriculture (DA) or other regulatory requirements.

It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Handle and test quarantinable seed	1.1 Plan work practices involving the handling and testing of quarantinable seed to ensure compliance

Element	Performance criteria
	1.2 Undertake seed testing procedures so that methods and equipment are fit for purpose 1.3 Implement procedures to ensure the accuracy, efficiency and DA compliance of equipment 1.4 Supervise and mentor team members to ensure DA compliance
2. Store quarantinable seeds	2.1 Identify DA and laboratory requirements for storage facilities and associated document processes 2.2 Store quarantinable seeds in accordance with DA requirements and documented procedures 2.3 Secure stored quarantinable seed to prevent unauthorised access
3. Report non-compliance	3.1 Report incidents and occurrences of non-compliance with storage or handling of quarantinable seeds 3.2 Provide supervision and training for laboratory personnel to meet compliance 3.3 Redesign or adjust workplace practices to prevent repetition of non-compliance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT405A Handle & store quarantinable seeds.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT405 Handle and store quarantinable seeds

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- handle and store quarantinable seeds
- maintain records and documentation relating to DA compliance
- redesign work procedures to prevent reoccurrence of non-compliance
- report non-compliance

Knowledge Evidence

The candidate must demonstrate knowledge of:

- DA requirements required for handling and storing quarantinable seeds
- laboratory systems, records and reporting procedures for dealing with quarantinable seeds
- relevant work health, safety and environment requirements
- statutory and legal compliance requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT406 Undertake internal audits in a seed laboratory

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out an internal audit in a seed testing laboratory. It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and they analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for internal audit	1.1 Review previous internal audits 1.2 Source and review relevant enterprise documents 1.3 Prepare audit plan to suit staff availability and laboratory operations 1.4 Prepare appropriate checklists and audit related documentation

Element	Performance criteria
	1.5 Agree on specific methods and techniques
2. Conduct audit	2.1 Ensure seed testing techniques are conducted by analysts and observed and reported on by auditor 2.2 Use questioning strategies to obtain further information on testing techniques and approaches from analysts 2.3 Report deviations to the standard operating procedures (SOPs) observed during observations of testing 2.4 Inspect seed storage, chemical store and sampling areas 2.5 Scrutinise work charts, schedules, reports and plans 2.6 Ensure the availability and currency of laboratory documents 2.7 Inspect archived documents to ensure they are complete and meet the statutory holding period
3. Report findings	3.1 Hold staff meeting to discuss outcomes of audit 3.2 Complete continuous improvement forms by auditor with suggested corrective actions 3.3 Prepare and provide an audit report to management for review 3.4 Present continuous improvement forms at future staff meetings until all corrective action is completed 3.5 File data collected during audit in laboratory information management system 3.6 Maintain confidentiality and security of enterprise information and laboratory data

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT406A Undertake internal audits in a seed laboratory.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT406 Undertake internal audits in a seed laboratory

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare an audit plan and strategy for a seed testing laboratory audit
- gather data and information by a variety of methods
- undertake an internal audit in a seed testing laboratory
- prepare an audit report for management review
- develop a continuous improvement report with suggested corrective actions

Knowledge Evidence

The candidate must demonstrate knowledge of:

- auditing methods and techniques
- enterprise standard operating procedures (SOPs)
- relevant legislation affecting business operation
- seed testing techniques, equipment and methodologies
- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT407 Perform an endophytic seed test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to determine of the presence of fungal endophyte in certain grasses.

It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for endophyte testing	1.1 Review test request to identify samples to be tested, test methods and equipment 1.2 Clean and prepare equipment and working space

Element	Performance criteria
	1.3 Prepare endophyte staining solution and alkaline or acid solution depending on method to be used 1.4 Prepare working sample from Pure Seed
2. Test seed for endophyte presence	2.1 Soften seed for recommended time in the prepared solution at the prescribed temperature 2.2 Rinse seed thoroughly in running tap water 2.3 Remove lemma, palea and endosperm from seed and place the remaining tissue on a microscope slide in a drop of endophyte staining solution crushing if necessary 2.4 Place cover glass on seed, applying gentle pressure and blot up excess stain 2.5 Examine seed with compound microscope and score as positive if endophytic hyphae are present, or negative if absent
3. Test seedlings for endophyte presence	3.1 Take 200-250 seeds from working sample at random 3.2 Sow seeds in good quality commercial potting mix at low density to allow for good growth 3.3 Examine well-developed seedlings from the germinated sample after growing for a minimum of 42 days 3.4 Cut seedling away from remnant seed and remove outermost sheath from the base of the seedling 3.5 Discard sheaths which are discoloured or have developed chlorophyll 3.6 Isolate a 3-5 mm wide longitudinal section of the sheath and place section on a microscope slide with the epidermis side down 3.7 Stain section immediately with the endophyte staining solution for prescribed time period 3.8 Place cover glass over the stained sheath section, press gently and blot of any excess staining solution 3.9 Examine the section with compound microscope and score as positive or negative if endophytic hyphae are present or absent
4. Record and report test results	4.1 Enter results under 'other determinations' 4.2 Record sample size used for testing and whether seeds or seedlings were tested 4.3 Report results in terms of the percentage of seeds or seedlings in which endophyte was detected

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT407A Perform an endophytic seed test.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT407 Perform an endophytic seed test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare endophyte staining solution
- test seed for endophyte presence
- test seedlings for endophyte presence
- record and report results of tests

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise standard operating procedures (SOPs)
- identification of endophytes
- recording and reporting protocols
- relevant health, safety and environment requirements
- seed biology

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT408 Perform an electrophoresis test on a seed sample

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to test seed by separating proteins of varying size and/or electric charge to get a banding pattern that can be used to identify or verify a particular variety.

It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and who demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare seed extraction and	1.1 Prepare working sample from submitted sample 1.2 Identify seed to be tested and complete records

Element	Performance criteria
gel	1.3 Cut or crush single seeds and transfer to centrifuge tubes 1.4 Add extraction solution and mix with crushed seeds and allow to stand for prescribed period 1.5 Centrifuge tubes and collect and store supernatants 1.6 Prepare gel mixture and chemicals and use to achieve required level of polymerisation
2. Carry out electrophoresis	2.1 Place buffer solution in tanks 2.2 Load samples into wells and place gel in tanks 2.3 Carry out electrophoresis at the prescribed voltage and duration 2.4 Maintain temperature as required throughout the process
3. Fix and stain sample	3.1 Remove gel from tank and treat with chemicals as prescribed 3.2 Wash gel and treat to enhance stain 3.3 Examine and/or photograph stain
4. Evaluate stain	4.1 Compare banding pattern with that of an authentic variety or that of a known control sample 4.2 Provide records and reports 4.3 Determine if obvious procedure or equipment problems have led to atypical data or results
5. Maintain a safe work environment	5.1 Use established safe work practices and personal protective equipment 5.2 Minimise the generation of wastes and environmental impacts 5.3 Ensure the safe collection of laboratory and hazardous waste for subsequent disposal 5.4 Care for and store equipment and reagents
6. Maintain laboratory records	6.1 Enter approved data into laboratory information management system 6.2 Maintain confidentiality and security of enterprise information and laboratory data

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT408A Perform an electrophoresis test on a seed sample.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT408 Perform an electrophoresis test on a seed sample

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- extract seed and prepare gel
- centrifuge seed and gel mixes
- interpret stain bands and patterns
- test seed by separating proteins of varying size and/or electric charge
- enter data into laboratory information management system
- maintain confidentiality and security of information and data

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise standard operating procedures (SOPs)
- materials and apparatus used in electrophoresis testing
- principles of electrophoresis
- range of electrophoresis testing procedures
- relevant health, safety and environment requirements
- seed biology
- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing
- using stain patterns and 'fingerprints' to determine seed variety

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT409 Perform a tetrazolium test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to perform a tetrazolium test to assess seed viability or germination potential.

It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare replicates for testing	1.1 Draw seeds from the pure seed fraction for the number of replicates to be tested ensuring there is no selection of seed which may cause biased results

Element	Performance criteria
	1.2 Use safe work practices and personal protective equipment
2. Prepare seed and tetrazolium solution	2.1 Pre-moisten seed under prescribed temperature and light conditions to reduce possibility of injury to seeds when puncturing or cutting and to enable penetration of the tetrazolium solution 2.2 Remove sticky mucilage from seeds as necessary 2.3 Expose seed tissue before staining as appropriate for the species being tested 2.4 Keep seeds moist before testing 2.5 Prepare tetrazolium solution using distilled water and add trace amounts of fungicide or antibiotics to solution if necessary for the species being tested
3. Stain with tetrazolium solution	3.1 Immerse seeds in tetrazolium solution 3.2 Maintain test at a temperature within the range 20 to 40°C, and maintain low light levels to facilitate staining 3.3 Increase duration of staining if temperatures below 30°C are used or decrease if higher temperatures are used 3.4 Decant the solution at end of staining period, rinse seeds with water and keep damp
4. Evaluate test results	4.1 Examine and evaluate each seed as viable or non-viable based on staining patterns applicable to the species being tested 4.2 Count the number of seeds considered viable in each replicate 4.3 Calculate the percentage of viable seed in each replicate and determine average percentage of viable seed across all replicates
5. Finalise reporting and clean up	5.1 Record and report results of test 5.2 Collect and dispose of laboratory and hazardous waste 5.3 Clean apparatus and equipment used in tetrazolium test and dispose of used chemicals and solutions safely

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT409A Perform a tetrazolium seed viability test.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT409 Perform a tetrazolium test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare replicates for testing
- prepare seed and tetrazolium solution
- stain seeds with a tetrazolium solution
- evaluate and report test results
- record and report test results
- clean apparatus and equipment used in test and dispose safely of used products

Knowledge Evidence

The candidate must demonstrate knowledge of:

- calculations, tolerances and rounding results
- enterprise and/or legal traceability requirements
- enterprise standard operating procedures (SOPs)
- interpretation and recording of test result, including simple calculations
- relevant health, safety and environment requirements
- seed biology
- tetrazolium testing procedures
- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT410 Perform a seed vigour test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to test for seed vigour to provide information about planting value in a wide range of environments and/or storage potential of seed lots.

It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for a seed vigour test	1.1 Review test request to identify samples to be tested, required test methods and equipment

Element	Performance criteria
	1.2 Clean and calibrate equipment and working space to enterprise standards
2. Receive and prepare samples	2.1 Log samples using standard operating procedures (SOPs) 2.2 Record sample description, compare with specification and report discrepancies 2.3 Prepare samples in accordance with testing method requirements 2.4 Maintain traceability of samples from receipt to reporting of results 2.5 Ensure control samples are prepared to enterprise guidelines if they are being used
3. Check equipment before use	3.1 Set up equipment and instruments in accordance with test method requirements 3.2 Perform pre-use and safety checks 3.3 Identify and report faulty or unsafe components and equipment 3.4 Check equipment calibration using specified standards and procedures 3.5 Quarantine out of calibration equipment and instruments 3.6 Ensure reagents required for the test are available and meet quality requirements
4. Conduct test	4.1 Determine the test method to be used according to the type of seed or as requested by the person requesting the test 4.2 Clean equipment and maintain in a clean state 4.3 Prepare a working sample and replicates using mixing and dividing processes 4.4 Prepare, place and/or treat seed to suit test method requirements 4.5 Measure or count and record results as determined by test method
5. Evaluate test results	5.1 Count the number of seeds or seedlings with required characteristics in each replicate 5.2 Calculate the percentage of seed or seedlings with required characteristics in each replicate and determine average percentage across all replicates 5.3 Report result of seed vigour test
6. Process and interpret data	6.1 Record test data noting atypical observations 6.2 Record and report results 6.3 Interpret trends in data or results and report out of specification or atypical results 6.4 Determine if obvious procedure or equipment problems have led to atypical data or results
7. Maintain a safe work	7.1 Use established safe work practices and personal protective

Element	Performance criteria
environment	equipment 7.2 Minimise the generation of wastes and environmental impacts 7.3 Collect laboratory and hazardous waste for subsequent disposal 7.4 Clean and maintain equipment and store equipment and reagents
8. Maintain laboratory records	8.1 Enter approved data into laboratory information management system 8.2 Maintain confidentiality and security of enterprise information and laboratory data 8.3 Maintain equipment and calibration logs

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT410A Perform a seed vigour test.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT410 Perform a seed vigour test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare and conduct a seed vigour test
- interpret and present results
- provide information about seeds' planting value
- provide information about the storage potential of seed lots
- record test results

Knowledge Evidence

The candidate must demonstrate knowledge of:

- calculations, tolerances and rounding results
- enterprise and/or legal traceability requirements
- enterprise standard operating procedures (SOPs)
- materials and apparatus used in seed vigour testing
- range of seed vigour testing procedures
- relevant health, safety and environment requirements
- role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing
- seed biology
- seed identification

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSDT411 Perform a 1000 seed weight test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to determine the weight per 1000 pure seeds from a submitted sample.

It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Seed testing

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare a working sample	1.1 Obtain pure seed following a purity analysis or as a representative fraction of a submitted sample 1.2 Use mechanical dividers where appropriate

Element	Performance criteria
	1.3 Maintain moisture content of working sample before counting through storing it in moisture-proof containers 1.4 Complete labelling and records
2. Count and weigh seed by machine	2.1 Put the entire working sample through a counting machine and record the total number of seeds indicated 2.2 Weigh working sample to the required number of decimal places
3. Count and weigh replicates by hand	3.1 Count out eight replicates of 100 seeds randomly from the working sample 3.2 Weigh each replicate to the required number of decimal places 3.3 Record weights of each replicate 3.4 Calculate variance, standard deviation and coefficient of variance 3.5 Test a new set of replicates where the coefficient of variance exceeds the prescribed value 3.6 Determine the average weight of 1000 seeds where the coefficient of variance does not exceed the prescribed value
4. Report results	4.1 Report results of weight determination under "other determinations" to the prescribed number of decimal places 4.2 Report the method used and the results calculated

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT411A Perform a 1000 seed weight test.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSDT411 Perform a 1000 seed weight test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- calculate variance, standard deviation and coefficient of variance
- determine the weight per 1000 pure seeds from a submitted sample
- prepare and weigh replicates
- report results

Knowledge Evidence

The candidate must demonstrate knowledge of:

- apparatus for weighing, counting and dividing seed samples
- calculations such as variance, standard deviation and coefficient of variance
- concepts of metrology
- enterprise standard operating procedures (SOPs)
- relevant health, safety and environment requirements
- role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing
- seed biology

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG201 Crutch sheep

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to crutch a sheep.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for crutching operations	1.1 Check crutching equipment for correct operation prior to commencing work 1.2 Identify potential and existing hazards in the workplace and

Element	Performance criteria
	report to the supervisor 1.3 Select, use and maintain suitable personal protective equipment and ensure correct fit 1.4 Identify, catch and move sheep to be crutched in line with work health and safety, industry and animal welfare standards 1.5 Position sheep for crutching
2. Perform crutching operations	2.1 Activate handpiece and position in readiness for crutching 2.2 Shear wool from face, crutch or belly as instructed 2.3 Use crutching methods to ensure that injury to the sheep and damage to the fleece is avoided 2.4 Use safe handling techniques at all times
3. Respond to complications	3.1 Identify contamination during crutching and report to wool handlers 3.2 Treat cuts as required 3.3 Identify and report flyblown sheep 3.4 Identify and report problem sheep
4. Complete crutching operations	4.1 Place wool appropriately to avoid contamination and for wool handlers to collect 4.2 Switch off handpiece and re-position to non-operational position 4.3 Release sheep safely from the board into the count out pens 4.4 Report crutching grievances and difficulties 4.5 Follow enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG201A Crutch sheep

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG201 Crutch sheep

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify potential and existing hazards to the supervisor
- select and use equipment and materials appropriate for crutching sheep
- avoid contamination, second cuts and damage to wool, animals and people
- catch and release sheep safely
- demonstrate safe and responsible workplace practices
- provide due care and handle sheep humanely
- clean and maintain crutching equipment, site and facilities
- communicate problems, faults and workplace hazards to the owner or overseer
- tally crutched sheep count
- apply enterprise work health and safety policies in the context of own work
- apply enterprise animal welfare policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of shearing sheds, boards and catching pens
- shearing machinery required and their relative functions
- industry agreed shearing techniques and positions, and method of shearing
- safe handling techniques for catching, dragging, shearing and releasing sheep
- basic anatomy of male and female sheep as it relates to the safe humane removal of wool.
- common sheep diseases as they relate to work health and safety and humane treatment of animals
- the impacts of sheep behaviour on moving, handling and shearing sheep
- personal protective clothing and equipment, and when and how it should be used

- Federal and/or State shearing awards and agreements associated with shearing sheep
- enterprise biosecurity policies applying to the job role
- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG202 Assist in preparing for shearing and crutching

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist the owner or classer in the preparation of sheds and facilities prior to shearing and crutching operations.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare equipment	1.1 Inspect the facilities with the owner or classer to determine the degree of preparation required

Element	Performance criteria
	1.2 Clean facilities and equipment as directed 1.3 Identify contaminating substances, remove and dispose of according to enterprise environmental requirements 1.4 Report equipment faults or malfunctions to owner or classer 1.5 Select, use and maintain suitable personal protective equipment
2. Arrange equipment and materials	2.1 Position equipment according to owner or classer requirements 2.2 Arrange bins and wool packs as instructed 2.3 Position brooms and scrapers where required for safety
3. Identify hazards and dispose of contaminants	3.1 Identify potential and existing hazards and report to owner or classer 3.2 Follow directions of owner or classer in eliminating work health and safety hazards
4. Pen sheep	4.1 Undertake work in conjunction with shed manager and other shed staff, to ensure sheep are moved and penned for shearing or crutching in line with work health and safety, industry and animal welfare standards

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG202A Assist in preparing for shearing and crutching

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG202 Assist in preparing for shearing and crutching

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- arrange and position shearing equipment and materials ready for shearing or crutching
- maintain contamination and hazard-free environment for shearing and wool handling
- carry out minor maintenance and repairs to equipment and facilities as directed
- disposal of waste in accordance with enterprise environmental requirements
- communicate verbally with owner/classer and follow instructions
- apply enterprise work health and safety policies in the context of own work
- apply enterprise animal welfare practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- shearing shed layouts and equipment
- maintenance and hygiene requirements of shearing sheds, boards and catching pens
- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role
- enterprise environmental policies

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG203 Shear sheep to novice level

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to select, handle and shear sheep under supervision to novice level.

Novice level is defined as shearing a minimum of 40 adult merino sheep or 50 adult crossbred sheep per day to industry standards.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Set-up shearing handpiece	1.1 Identify potential and existing hazards in the workplace and report to supervisor 1.2 Check shearing equipment for correct operation 1.3 Assemble comb and cutter on handpiece 1.4 Set lead and throw for comb and cutter 1.5 Set tension to enable comb and cutter to cut wool cleanly with minimum friction 1.6 Lubricate working surfaces and moving parts
2. Follow health and fitness procedures	2.1 Prepare for exercises to warm-up the body 2.2 Perform back, shoulder, leg, arm, and abdomen stretches 2.3 Recognise the necessities of hydration, nutrition and rest periods
3. Catch sheep for shearing	3.1 Select, use and maintain suitable personal protective equipment 3.2 Catch sheep and move to required location in line with organisational, work health and safety, industry and animal welfare standards 3.3 Drag sheep from the catching pen to the shearing board using safe manual handling techniques 3.4 Position sheep for shearing
4. Remove fleece	4.1 Activate handpiece and position in readiness for shearing operations 4.2 Shear section of sheep in position suitable to the individual's competence 4.3 Shear the six basic positions in sequence 4.4 Minimise injury to sheep and treat injuries where required 4.5 Release sheep safely from the board into the count-out pens 4.6 Minimise second cuts and contamination 4.7 Maintain shearing effort to achieve the required minimum rate per day to acceptable standard

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG203A Shear sheep to novice level

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG203 Shear sheep to novice level

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed shearing a minimum of 40 adult merino sheep or 50 adult crossbred sheep per day to industry standards.

The candidate must provide evidence that they can:

- follow safe work practices
- select and use equipment and materials appropriate for shearing sheep
- load a handpiece correctly
- avoid contamination, second cuts
- shear sufficient sheep within eight hours to match novice skill level
- use appropriate suturing for cuts to sheep
- catch and release sheep safely
- provide due care and handle sheep humanely
- clean and maintain shearing equipment, site and facilities
- communicate problems, faults and workplace hazards to the owner or overseer
- tally shorn sheep count
- apply work health and safety policies in the context of own work
- apply enterprise animal welfare policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of shearing sheds, boards and catching pens
- shearing machinery required and their relative functions
- industry agreed shearing techniques and positions, and method of shearing

- safe handling techniques for catching, dragging, shearing and releasing sheep
- basic anatomy of male and female sheep as it relates to the safe humane removal of wool
- common sheep diseases as they relate to work health and safety and humane treatment of animals
- the impacts of sheep behaviour on moving, handling and shearing sheep
- personal protective clothing and equipment, and when and how it should be used
- Federal and/or State shearing awards and agreements associated with shearing sheep
- enterprise biosecurity policies applying to the job role
- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG204 Shear sheep to improve r level

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to select, handle and shear sheep under supervision to improve r level.

Improver level is defined as shearing a minimum of 80 adult merino sheep or 100 adult crossbred sheep per day to industry standards.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad supervision and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for shearing	1.1 Check shearing equipment for correct operation prior to shearing session 1.2 Identify potential and existing hazards in the workplace and report to the supervisor 1.3 Select, use and maintain suitable personal protective equipment 1.4 Identify, catch sheep and move to required location in line with organisational, work health and safety, industry and animal welfare standards
2. Perform shearing operations	2.1 Position sheep for shearing using identified positions 2.2 Activate handpiece and position in readiness for shearing operations 2.3 Shear sheep using identified method and positions 2.4 Use shearing methods that ensure that injuries and damage to the sheep and fleece is avoided while meeting volume expectations 2.5 Use safe and humane handling techniques at all times
3. Respond to complications	3.1 Identify contamination during shearing operations and report to wool handlers 3.2 Suture sheep cuts as required 3.3 Identify flyblown sheep and report 3.4 Identify problem sheep and report
4. Complete shearing operation	4.1 Place wool to avoid contamination and for wool handlers to collect 4.2 Set handpiece to non-operational position and store 4.3 Release sheep safely from the board into the count-out pens 4.4 Report shearing grievances and difficulties 4.5 Follow enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG204A Shear sheep to improve level

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG204 Shear sheep to improver level

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed shearing a minimum of 80 adult merino sheep or 100 adult crossbred sheep per day to industry standards.

The candidate must provide evidence that they can:

- identify hazards and follow safety directions
- select and use equipment and materials appropriate for shearing sheep
- avoid contamination, second cuts and damage to wool, sheep and people
- shear sufficient sheep within eight hours to match skill level as per industry award minimum rate of pay for learner shearers
- suture cuts to sheep
- catch and release sheep safely
- demonstrate safe and responsible workplace practices
- provide due care and handle sheep humanely
- clean and maintain shearing equipment, site and facilities
- communicate problems, faults and workplace hazards, and to comprehend instructions provided by the owner or overseer
- tally shorn sheep count
- apply enterprise work health and safety policies in the context of own work
- apply enterprise animal welfare policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of shearing sheds, boards and catching pens

- shearing machinery required and their relative functions
- industry shearing techniques and positions and method of shearing
- aspects of safe handling techniques for catching, dragging, shearing and releasing sheep
- basic anatomy of male and female sheep as it relates to the safe humane removal of wool
- common sheep diseases
- the impacts of sheep behaviour on moving and handling sheep and shearing sheep
- personal protective clothing and equipment, and when and how it should be used
- Federal and/or State shearing awards and agreements associated with shearing sheep
- enterprise biosecurity policies applying to the job role
- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG205 Grind combs and cutters for machine shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to grind combs and cutters for machine shearing so that they are effective for the type of wool and shearing conditions.

All work must be carried out to comply with workplace procedures, work health and safety, biosecurity requirements and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine need for sharpening combs and	1.1 Check combs and cutters for wear and report any issues found

Element	Performance criteria
cutters	1.2 Clean combs and cutters prior to grinding 1.3 Identify work health and safety hazards and report to supervisor
2. Prepare grinder and pendulum for use	2.1 Check the grinder and its location for serviceability and safety report safety hazards to supervisor 2.2 Identify grinder faults or malfunctions and report to supervisor for repair or replacement 2.3 Apply grinding papers to grinder discs 2.4 Store and care for grinding papers 2.5 Check, clean and adjust the bottom bar of the pendulum to ensure it is true 2.6 Confirm that the pressure bar and pins are set at the recommended distance 2.7 Check the height setting of pendulum
3. Carry out grinding	3.1 Wear eye protection while grinding is carried out 3.2 Secure comb or cutter for grinding 3.3 Apply correct pressure while grinding 3.4 Grind combs and cutters as directed 3.5 Check combs and cutters visually for even grinding 3.6 Identify and rectify faults or unevenness in grinding 3.7 Ensure grinding wheel is not left running when unattended

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG205A Grind combs and cutters for machine shearing

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG205 Grind combs and cutters for machine shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed grinding combs and cutters for machine shearing.

The candidate must provide evidence that they can:

- identify hazards and apply safe work practices
- determine need for sharpening combs and cutters
- prepare grinder and pendulum for use
- carry out grinding to industry standards

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of combs and cutters
- terminology, techniques and procedures for grinding combs and cutters
- setting of, storage and caring for grinding papers
- tools and equipment used in grinding combs and cutters
- work health and safety legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG206 Prepare handpiece and downtube for machine shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare handpieces and downtubes for machine shearing.

All work must be carried out to comply with workplace procedures, work health and safety, biosecurity requirements and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare combs and	1.1 Select combs and cutters to suit fleece type and shearing

Element	Performance criteria
cutters for shearing	conditions 1.2 Check combs and cutters for serviceability and prepare 1.3 Identify comb and cutter faults or malfunctions and report for repair or replacement 1.4 Clean combs and cutters prior to sharpening 1.5 Change combs and cutters during the shearing operations to suit shearing conditions 1.6 Identify potential and existing hazards and report to supervisor
2. Prepare handpiece for shearing	2.1 Secure comb and cutter for shearing 2.2 Lubricate handpiece prior to shearing 2.3 Adjust tension to suit shearing conditions and preference of the shearer 2.4 Check handpiece for serviceability and prepare 2.5 Identify handpiece faults or malfunctions and report for repair or replacement
3. Prepare downtube for shearing	3.1 Check downtube is checked for serviceability and prepare 3.2. Identify downtube faults or malfunctions and report for repair or replacement 3.3 Adjust safety clutch 3.4 Adjust downtube 3.5 Lubricate downtube prior to shearing

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG206A Prepare handpiece and downtube for machine shearing

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG206 Prepare handpiece and downtube for machine shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe operating procedures
- select and load comb and cutter for shearing
- prepare combs, cutters, handpieces and downtubes for shearing
- lubricate and maintain handpiece and downtube
- carry out minor maintenance and repairs
- recognise and clearly report any work health and safety hazards to the appropriate person

Knowledge Evidence

The candidate must demonstrate knowledge of:

- components of a shearing handpiece
- components of a downtube
- terminology for handpieces and downtubes
- maintenance and lubrication procedures for shearing equipment and handpieces
- types of combs and cutters to use under different conditions
- work health and safety legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG207 Shear goats

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to catch, handle and shear goats.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity requirements and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They identify and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for shearing	1.1 Check shearing equipment for correct operation prior to shearing

Element	Performance criteria
	session 1.2 Identify, catch and move goats to be shorn 1.3 Prepare shearing equipment in readiness for shearing operations 1.4 Identify potential and existing hazards in the workplace and report to the supervisor 1.5 Select, use and maintain suitable personal protective equipment
2. Perform shearing operations	2.1 Position goat for shearing using identified positions and shear 2.2 Use shearing methods that ensure that damage to the goat and fleece is minimised while meeting volume of shearing expectations 2.3 Shear goats using safe and humane handling techniques at all times 2.4 Comply with work health and safety and animal welfare requirements
3. Respond to complications	3.1 Identify contamination during shearing operations and report to owner 3.2 Treat cuts to goats as required 3.3 Identify problem goats and report
4. Complete shearing operation	4.1 Place fibre to avoid contamination and for collection by handlers 4.2 Set handpiece to non-operational position and store 4.3 Release goats safely from the board into the count-out pens 4.4 Report shearing grievances and difficulties to supervisor 4.5 Monitor and control environmental implications associated with shearing activities 4.6 Follow enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG207A Shear goats

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG207 Shear goats

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work practices
- select and operate equipment appropriate to shearing tasks
- shear goats using industry accepted methods and procedures
- avoid contamination, second cuts and damage to fleece, goats and people
- appropriately treat injured goats
- handle goats with due care
- maintain safe and hazard-free equipment
- effectively communicate with supervisor
- apply enterprise work health and safety policies in the context of own work
- apply enterprise animal welfare, biosecurity policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of shearing sheds, boards and catching pens
- components and functions of shearing equipment and machinery
- industry accepted handling and shearing techniques and positions
- basic goat anatomy and behavioural characteristics as they impact on shearing of goats
- common goat diseases and treatments as they impact on work health and safety and humane treatment of goats
- enterprise biosecurity policies applying to the job role
- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG208 Shear alpacas

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to catch, handle and shear alpacas.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity requirements and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They identify and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for shearing	1.1 Check shearing materials, tools and equipment for serviceability

Element	Performance criteria
	and prepare in readiness for shearing operations 1.2 Identify, draft and move alpacas to be shorn 1.3 Position alpacas for shearing 1.4 Identify potential and existing hazards in the workplace and report to the supervisor 1.5 Select, use and maintain suitable personal protective equipment
2. Perform shearing operations	2.1 Shear alpacas using shearing methods that minimise damage to the alpaca and fleece while meeting volume of shearing expectations 2.2 Use safe and humane handling techniques at all times 2.3 Monitor own shearing performance and adjust posture, shearing rate or speed and position of alpaca as required 2.4 Comply with work health and safety and animal welfare requirements
3. Respond to complications	3.1 Identify contamination during shearing operations and report to owner 3.2 Treat cuts to alpacas as required 3.3 Identify problem alpacas and report
4. Complete shearing operation	4.1 Place fibre to avoid contamination and for collection by handlers 4.2 Set handpiece to non-operational position and store 4.3 Release alpacas safely from the board into holding yards 4.4 Report shearing grievances and difficulties 4.5 Monitor and control environmental implications associated with shearing activities 4.6 Follow enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG208A Shear alpacas

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG208 Shear alpacas

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed shearing alpacas.

The candidate must provide evidence that they can:

- identify hazards, apply safe work practices and maintaining safe and hazard-free equipment
- select, set up and operate equipment appropriate to shearing tasks
- position alpaca and restrain for shearer safety
- handle and shear alpacas with due care using industry-accepted methods and procedures
- appropriately treat injured alpacas
- avoid contamination, second cuts and damage to fleece, alpacas and people
- demonstrate safe and environmentally responsible workplace practices
- apply enterprise work health and safety policies in the context of own work
- apply enterprise animal welfare and biosecurity policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- basic alpaca anatomy and behavioural characteristics as they impact on shearing of alpaca
- common goat diseases and treatments as they impact on work health and safety and humane treatment of goats
- components and functions of shearing equipment and machinery
- industry-accepted handling and shearing techniques and positions
- enterprise biosecurity policies applying to the job role
- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG209 Support alpaca shearing operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to support alpaca shearing operations.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity requirements and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They identify and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for	1.1 Identify required materials, tools and equipment from provided

Element	Performance criteria
alpaca shearing support activities	<p>lists or a supervisor's instructions</p> <p>1.2 Check materials, tools and equipment and report to supervisor if there are insufficient available or faults</p> <p>1.3 Identify potential and existing hazards in the workplace and report to the supervisor</p> <p>1.4 Select, use and maintain suitable personal protective equipment</p>
2. Carry out alpaca shearing support duties	<p>2.1 Follow supervisor's instructions and seek clarification when necessary</p> <p>2.2 Handle, pen and work around alpacas in a safe and environmentally appropriate manner, using correct manual handling techniques and in accordance to enterprise and work health and safety guidelines and animal welfare policies</p> <p>2.3 Interact with others in a positive and professional manner</p> <p>2.4 Report problems or difficulties that may impact on completion of work to the required standards or achievement of timelines and take remedial action as directed</p> <p>2.5 Observe site quarantine and other biosecurity protocols</p> <p>2.6 Store waste material produced during alpaca shearing in a designated area</p> <p>2.7 Keep own work area clean and tidy while working and provide assistance as instructed to keep the general work area clean and tidy</p> <p>2.8 Monitor weather conditions post-shearing for risk of exposure for shorn animals</p>
3. Clean up on completion of alpaca shearing	<p>3.1 Return materials to store or dispose of according to supervisor's instructions</p> <p>3.2 Clean, maintain and store tools and equipment</p> <p>3.3 Report work outcomes to supervisor, seek feedback on performance and note any required improvements for future action</p> <p>3.4 Apply enterprise biosecurity policies</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG209A Support alpaca shearing operations

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG209 Support alpaca shearing operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed supporting alpaca shearing operations.

The candidate must provide evidence that they can:

- identify hazards and apply safe work practices
- clean up during and on completion of alpaca shearing
- handle, pen and work around alpacas safely and humanely
- prepare and handle materials, tools and equipment for alpaca shearing support tasks
- apply work health and safety in the context of own work
- apply enterprise biosecurity protocols in the context of own work
- apply enterprise animal welfare policies in the context of own work
- apply enterprise environmental sustainability policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- alpaca fleece types
- basic fleece handling practices
- safe work practices associated with alpaca shearing activities
- shearing tools and equipment required for alpaca shearing
- biosecurity legislation and codes of practice applying to the job role
- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG210 Undertake basic shearing and crutching

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required for basic wool removal as part of a shearing and crutching operation.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Set-up shearing handpiece as directed	1.1 Identify potential and existing hazards in the workplace and report to supervisor

Element	Performance criteria
	1.2 Check shearing equipment for correct operation 1.3 Assemble comb and cutter on handpiece 1.4 Set lead and throw 1.5 Set tension to enable comb and cutter to cut wool cleanly with minimum friction 1.6 Lubricate working surfaces and moving parts
2. Follow health and fitness procedures	2.1 Prepare for exercises to warm-up the body 2.2 Perform back, shoulder, leg, arm, and abdomen stretches 2.3 Recognise the necessities of hydration, nutrition and rest periods 2.4 Select suitable personal protective equipment and ensure correct fit
3. Catch sheep for shearing	3.1 Catch and move sheep in line with organisational, work health and safety, industry and animal welfare standards 3.2 Move sheep from the catching pen to the shearing board using safe manual handling techniques 3.3 Position sheep for shearing and crutching
4. Remove wool	4.1 Activate handpiece and position in readiness for shearing and crutching operations 4.2 Shear and crutch section of sheep as directed 4.3 Release sheep safely from the board into the count-out pens

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG101A Undertake basic shearing and crutching

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG210 Undertake basic shearing and crutching

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow safety directions
- select, prepare and use tools equipment and materials appropriate for shearing sheep work
- ensure health and fitness for shearing
- avoid contamination, second cuts and damage to wool, sheep and people
- catch and shear a sheep in line with organisational, animal welfare and work health safety standards
- demonstrate safe and responsible workplace practices
- clean and maintain shearing equipment, site and facilities
- communicate problems, faults and workplace hazards, and to comprehend instructions provided by the owner or overseer

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of shearing sheds, boards and catching pens
- shearing machinery required and their relative functions
- industry agreed shearing and crutching techniques, and positions and method of shearing
- features of safe handling techniques for catching, dragging, shearing and releasing sheep
- basic anatomy of male and female sheep as it relates to the safe, humane removal of wool.
- common sheep diseases as they relate to work health and safety and humane treatment of animals
- the impacts of sheep behaviour on moving, handling and shearing sheep

- animal welfare requirements in relation to sheep
- personal protective clothing and equipment and when and how it should be used
- Federal and/or State shearing awards and agreements associated with shearing sheep
- work health and safety legislation and codes of practice apply to the job role
- animal welfare legislation and codes of practice apply to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG301 Prepare livestock for shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to sort and prepare livestock for shearing.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity requirements and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Sort livestock for	1.1 Locate, identify and confirm livestock with as specified in

Element	Performance criteria
shearing	shearing plan 1.2 Muster livestock and move to shearing facilities, sort, count and yard livestock 1.3 Identify livestock with pigmented fleece and cull for separate shearing operations 1.4 Identify potential and existing hazards, assess risks and implement control measures in line with enterprise work health and safety policies 1.5 Select, use and maintain suitable personal protective equipment 1.6 Comply with animal welfare codes of practice
2. Prepare livestock for shearing	2.1 Check shearing, cleaning and drenching equipment for correct operation 2.2 Crutch livestock as required 2.3 Remove contaminated and stained wool and dispose of appropriately 2.4 Take livestock off feed to allow emptying out before shearing
3. Monitor livestock	3.1 Provide and maintain feed and water supplies for livestock 3.2 Provide and maintain suitable shelter for livestock 3.3 Monitor livestock condition and health status for evidence of sickness, and record or report as required 3.4 Monitor and control environmental implications associated with shearing activities 3.5 Apply enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG301A Prepare livestock for shearing

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG301 Prepare livestock for shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed preparing livestock for shearing.

The candidate must provide evidence that they can:

- identify hazards and implement safe work procedures
- select equipment appropriate to crutching and shearing tasks
- organise crutching and shearing operations
- muster, move, draft and handle livestock in compliance with animal welfare requirements
- observe and monitor livestock health and condition and detect disease or nutritional disorders and treat appropriately
- organise feed and water supplies
- avoid and remove contamination of fleece
- demonstrate safe and environmentally responsible workplace practices
- communicate verbally with work team and manager
- calculate livestock numbers, keep mobs separate
- follow enterprise work health and safety policies in the context of own work
- follow enterprise biosecurity policies in the context of own work
- follow enterprise animal welfare policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- different types and purposes of shearing boards, yards and catching pens
- components and functions of shearing, cleaning and drenching equipment
- handling, mustering and movement techniques

- livestock breeds, nutritional and hygiene requirements
- possible fleece contaminants and types of pigmentation faults
- biosecurity legislation and codes of practice applying to the job role
- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG302 Prepare combs and cutters for machine shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare combs and cutters for machine shearing.

All work must be carried out to comply with workplace procedures and work health and safety.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Grind combs and	1.1 Check the grinder and its location for safety hazards and

Element	Performance criteria
cutters	implement control measures 1.2 Identify faulty components and determine level of repair or replacement requirements 1.3 Operate grinder in a safe manner without risk of injury to operator or others or damage to equipment 1.4 Adjust pendulum pin settings, confirm set and pendulum bar is clean and check for level 1.5 Test grinding plates visually in terms of being balanced and true 1.6 Identify worn and incorrectly adhered papers and replace 1.7 Set grinder 1.8 Identify even wear of combs and cutters and sharpen combs and cutters
2. Dress combs	2.1 Select bevel and modify appropriate to wool type 2.2 Determine factors affecting combs selection in terms of type of livestock and seasonal conditions 2.3 Dress comb teeth to uniform shape and length 2.4 Thin comb teeth uniformly along their length 2.5 Polish comb leaving no rough or sharp points

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG302A Prepare combs and cutters for machine shearing

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG302 Prepare combs and cutters for machine shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed preparing combs and cutters for machine shearing.

The candidate must provide evidence that they can:

- identify hazards and apply safe operating procedures to grinding
- determine need for sharpening combs and cutters
- determine need for dressing combs
- prepare grinder and pendulum for use
- carry out grinding
- set, store and care for grinding papers
- dress combs, including selecting bevels, teeth thinning and polishing

Knowledge Evidence

The candidate must demonstrate knowledge of:

- different types of combs and cutters
- terminology, techniques and procedures for grinding combs and cutters
- tools and equipment used in grinding combs, and cutters and dressing combs
- hazard identification and risk control

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG303 Maintain and service shearing handpieces

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain and service shearing handpieces as part of a shearing operation.

All work must be carried out to comply with workplace procedures and work health and safety requirements

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify worn and faulty handpiece	1.1 Assess the performance of the handpiece

Element	Performance criteria
components and install minor repair kit components	1.2 Check and clean comb bed, cups and fork yokes and check comb bed visually for flatness 1.3 Identify worn and faulty handpiece components 1.4 Install minor repair kit components 1.5 Check faulty comb beds and assess the required scope of repairs 1.6 Determine if there is a need for a technician to repair the fault 1.7 Carry out repairs according to manufacturer's specifications and work health and safety requirements 1.8 Arrange repairs by a technician as required
2. Service handpiece	2.1 Adjust handpiece components to maintain operational performance 2.2 Lubricate handpiece 2.3 Replace components requiring periodic replacement 2.4 Identify wear and tear on handpiece in terms of effects on performance 2.5 Install safety components and check before operation of the handpiece 2.6 Run and check handpiece prior to use to determine safe operational performance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG303A Maintain and service shearing handpieces

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG303 Maintain and service shearing handpieces

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed maintaining and servicing shearing handpieces.

The candidate must provide evidence that they can:

- identify worn and faulty handpiece components
- install minor repair kit components
- maintain and service handpieces
- apply enterprise work health and safety policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- terminology and assembly procedures for handpieces
- maintenance and servicing requirements for shearing handpieces
- components of a shearing handpiece
- different types of combs and cutters to use under different conditions
- work health and safety legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG304 Shear sheep to professional level

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to select, handle and shear sheep to a professional level at least 120 adult merino sheep or 140 adult crossbred sheep per day to industry standards.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity requirements and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Recognise and correct faults in shearing technique	1.1 Analyse shearing technique 1.2 Recognise and correct faults in sheep position, footwork and free hand use 1.3 Recognise and correct faults in the number of blows and their placement 1.4 Improve co-ordination of footwork, free hand use, sheep control and blow placement
2. Apply techniques to increase shearing speed and accuracy	2.1 Increase speed at which the handpiece is pushed forward and returned between blow placements 2.2 Improve the power, direction and manoeuvrability applied at the increased speed 2.3 Improve rhythm at the increased speed 2.4 Maintain calm and consistent temperament whilst shearing 2.5 Recognise the importance of stamina and fitness in improvement of output consistency
3. Shear required number of sheep in an eight hour day working day to quality standard of the industry for both sheep and wool	3.1 Demonstrate safety procedures during shearing in relation to people and sheep 3.2 Avoid excessive wool contamination and damage to the wool 3.3 Shear 120 adult merino sheep or equivalent using identified method and positions in a normal eight-hour working day 3.4 Use correct movement of feet and hands, and maintain correct positioning to the downtube 3.5 Release sheep at increased speed 3.6 Comply with work health and safety and animal welfare requirements 3.7 Follow enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG304A Shear sheep to professional level

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG304 Shear sheep to professional level

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed shearing a minimum of 120 adult merino sheep or 140 adult crossbred sheep per day to industry standards.

The candidate must provide evidence that they can:

- identify hazards and work safely
- avoid contamination, second cuts and injury to animals
- shear sufficient sheep within eight hours to match skill level of a professional shearer
- analyse and increase on improver shearer level
- shear with the industry accepted pattern
- use appropriate suturing for cuts to sheep
- catch and release sheep safely
- demonstrate safe and responsible workplace practices
- provide due care and handle sheep humanely
- apply enterprise workplace health and safety policies in the context of own work
- apply enterprise biosecurity policies in the context of own work
- apply enterprise animal welfare policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of shearing sheds, boards and catching pens
- shearing machinery required and their relative functions
- industry agreed shearing techniques and positions and method of shearing
- safe handling techniques for catching, dragging, shearing and releasing sheep

- the impacts of sheep behaviour on moving and handling sheep and shearing sheep
- Federal and/or State shearing awards and agreements associated with shearing sheep
- enterprise biosecurity policies applying to the job role
- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG305 Maintain consistent shearing performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain a consistent shearing performance.

All work must be carried out to comply with workplace procedures and work health and safety requirements

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Maintain shearing control, coordination	1.1 Maintain consistent rhythm for 8-hour working day

Element	Performance criteria
and rhythm	1.2 Maintain coordination of footwork to assist control and blows placement for 8-hour working day 1.3 Analyse eye to hand coordination to optimise consistent blow placement
2. Maintain shearing output	2.1 Maintain shearing output and quality to meet expectation of the grower, contractor and self in terms of shearing conditions 2.2 Maintain shearing output and quality in terms of minimum industry output requirements and minimum industry quality requirements 2.3 Evaluate current stamina and fitness program, including eating, exercise, back care, fluid intake and rest periods, for means of improvement maintaining shearing performance 2.4 Comply with enterprise animal welfare and work health and safety policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG305A Maintain consistent shearing performance

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG305 Maintain consistent shearing performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed maintaining shearing control, coordination and rhythm over a working day.

The candidate must provide evidence that they can:

- identify hazards and implement risk controls
- maintain optimum shearing output by correct preparation and set up of equipment
- maintain application of improved techniques
- maintain speed and accuracy
- assess and monitor the shearing conditions and environment to maintain shearing performance
- maintain control, coordination, rhythm and output during shearing

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of shearing sheds, boards and catching pens
- shearing machinery required and their relative functions
- industry shearing techniques and positions and method of shearing
- aspects of safe handling techniques for catching, dragging, shearing and releasing sheep.
- basic anatomy of male and female sheep as it relates to the safe humane removal of wool.
- the impacts of sheep behaviour on moving and handling sheep and shearing sheep
- personal protective clothing and equipment, and when and how it should be used
- Federal and/or State shearing awards and agreements associated with shearing sheep

- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG306 Carry out post-shearing procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to care for shorn livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity requirements and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Monitor weather	1.1 Monitor weather during and after shearing operations, and revise

Element	Performance criteria
conditions	<p>work programs in response to changing circumstances</p> <p>1.2 Identify adverse weather conditions and assess and report the likely impacts on livestock, feed and property</p> <p>1.3 Determine the appropriate actions required to minimise loss or damage to livestock during adverse weather conditions</p>
2. Assess and monitor livestock condition	<p>2.1 Assess and record livestock condition and health status</p> <p>2.2 Identify and report abnormal behaviour or evidence of sickness</p> <p>2.3 Determine and provide water and feed requirements for livestock, and arrange supplementary feeding as required</p> <p>2.4 Apply enterprise animal welfare policies</p>
3. Maintain livestock environment	<p>3.1 Maintain livestock yards and facilities so that they are clean, secure and safe</p> <p>3.2 Maintain suitable shelter for shorn livestock to prevent losses</p> <p>3.3 Identify existing and potential hazards, assess risks and implement control measures</p>
4. Complete post-shearing operations	<p>4.1 Monitor and control environmental implications associated with shearing activities</p> <p>4.2 Clean shearing facilities and equipment and dispose of waste</p> <p>4.3 Record relevant information and report to appropriate personnel</p> <p>4.4 Follow enterprise biosecurity policies where required</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG306A Carry out post-shearing procedures

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG306 Carry out post-shearing procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed caring for shorn livestock.

The candidate must provide evidence that they can:

- identify existing and potential hazards implement control measures
- relate weather conditions to livestock requirements
- prepare contingency plan and anticipate emergency action
- handle livestock with due care
- weigh livestock and assess condition
- observe and monitor livestock behaviour, health and condition
- read and interpret weather information
- provide feed and water based on livestock numbers
- rug animals where required
- apply enterprise work health and safety policies in the context of own work
- apply enterprise animal welfare and biosecurity policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- impacts of adverse weather conditions on shorn livestock
- physiological conditions brought on by stress post shearing, and treatment of same
- types and constructs of livestock shelter
- livestock handling techniques in response to adverse weather
- condition scoring
- appropriate types of feed for stressed livestock

- enterprise biosecurity policies applying to the job role
- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG307 Plan and prepare for alpaca shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and make preparations prior to alpaca shearing.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity requirements and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Complete work contracts for shearers	1.1 Arrange shearing services in advance

Element	Performance criteria
and shed staff	1.2 Agree on terms and conditions of employment or engagement and check against the award or other accepted arrangements 1.3 Record employment terms and conditions into an employment contract where employment is arranged and ensure they are signed by employer and employees
2. Develop work plan for shearing day	2.1 Discuss, develop and agree on a shearing work plan with shearing team and document 2.2 Identify hazards relevant to the preparation and conduct of shearing and document in work plan and take appropriate action to minimise risks 2.3 Carry out work according to work plan 2.4 Review work plan with shearing team and note required improvements for future action
3. Check shearing equipment	3.1 Use work plan to identify and obtain all equipment and supplies necessary for shearing 3.2 Check and prepare equipment required for shearing and ensure it is clean, set up and functioning correctly
4. Ensure shed and yards are prepared for shearing	4.1 Check and clean shearing shed prior to commencement of shearing 4.2 Check and clean yards prior to commencement of shearing 4.3 Remove sources of alpaca fibre contamination 4.4 Report safety hazards to fibre grower or shed manager
5. Pen up alpacas	5.1 Move alpacas according to shearing sequence 5.2 Pen alpacas by mobs, according to work plan 5.3 Determine pen density to avoid crushing, trampling or soiling of alpaca fibre 5.4 Secure gates to prevent mixing of mobs or escape of alpacas 5.6 Monitor alpaca numbers in holding pens to ensure continuous supply to shearer 5.7 Monitor pens to maintain alpaca in standing position to avoid soiling of alpaca fibre 5.8 Apply enterprise animal welfare policies 5.9 Apply enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG307A Plan and prepare for alpaca shearing

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG307 Plan and prepare for alpaca shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must produce a shearing work plan and ensure that all required planning and preparation for shearing has been completed.

The candidate must provide evidence that they can:

- carry out cleaning and decontamination of pens and shearing shed to industry standards
- move alpacas according to work health and safety, animal welfare and enterprise requirements
- muster and draft alpacas into pens according to enterprise and industry standards
- operate any necessary equipment to industry standards
- use industry-accepted alpaca handling techniques
- apply enterprise biosecurity policies in the context of own work
- apply enterprise animal welfare policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Alpaca Industry Best Practice Standards for Harvesting of Alpaca Fibre
- elements of effective and appropriate alpaca shearing work plans
- equipment requirements for alpaca shearing
- how to clean and decontaminate sheds and pens
- industry-accepted alpaca handling and moving techniques
- relevant industry awards and conditions
- enterprise biosecurity policies applying to the job role
- work health and safety legislation and codes of practice applying to the job role

- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG401 Apply advanced shearing techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to apply advanced shearing techniques.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity requirements and sustainability practices.

This unit applies to individuals who take responsibility for their own work and use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare and set up equipment to optimise	1.1 Confirm that the range and condition of equipment available for selection meets anticipated shearing conditions

Element	Performance criteria
shearing output	1.2 Select equipment and set up based on the assessment of shearing conditions to ensure the optimum yield and shearing throughput 1.3 Monitor equipment performance and make adjustments to maintain optimum shearing throughput
2. Assess and monitor the shearing conditions and environment	2.1 Confirm that the style and approach adopted for the shear are appropriate to the shearing conditions, and maintain the quality and throughput at the appropriate level 2.2 Adopt approaches for mitigating adverse shearing conditions prior to and during the shearing 2.3 Monitor and assess the shearing environment with consideration of the whole wool harvesting operation 2.4 Identify potential and existing hazards, assess risks and implement control measures 2.5 Identify opportunities to support and encourage the performance of other shearers and respond constructively while maintaining own output 2.6 Implement enterprise animal welfare policies
3. Maintain control, rhythm and output during shearing	3.1 Adapt personal position and shearing method to accommodate limitations in equipment performance and set up 3.2 Use timing, length and width of blows that optimise selected shearing pattern 3.3 Ensure blow commencement and finish positions are economical of effort and reflect the shortest route 3.4 Ensure blow placement, body work and sheep positioning combine to represent sustainable shearing effort and output

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG401A Apply advanced shearing techniques

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG401 Apply advanced shearing techniques

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed applying advanced shearing techniques while shearing.

The candidate must provide evidence that they can:

- identify potential and existing hazards, assess risks and implement control measures
- prepare and set up equipment to optimise shearing output
- assess and monitor a diverse range of shearing conditions and environments
- maintain control, co-ordination, rhythm, high quality performance and output during shearing
- support and encourage the performance of other shearers as part of a team and respond constructively while maintaining own output
- implement enterprise animal welfare policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of shearing sheds, boards and catching pens
- shearing machinery required and their relative functions
- industry shearing techniques and positions and method of shearing
- aspects of safe handling techniques for catching, dragging, shearing and releasing sheep
- basic anatomy of male and female sheep as it relates to the safe humane removal of wool
- common sheep diseases
- the impacts of sheep behaviour on moving and handling sheep and shearing sheep
- personal protective clothing and equipment, and when and how it should be used
- Federal and/or State shearing awards and agreements associated with shearing sheep

- work health and safety legislation and codes of practice applying to the job role
- animal welfare legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG402 Conduct equipment experting for machine shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare a comb for shearing, or experting the comb.

All work must be carried out to comply with workplace procedures and work health and safety policies.

This unit applies to individuals who take responsibility for their own work and use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Trim and finish combs	1.1 Identify signs of non-optimal equipment performance and remedy 1.2 Identify potential and existing work health and safety hazards and

Element	Performance criteria
	implement control measures 1.3 Confirm that the trim and finish meet the requirements of the current shearing task 1.4 Maintain control of comb and tools throughout the experting process 1.5 Adapt the comb in a form that meets individual shearing style
2. Scallop comb	2.1 Recognise and apply the principles and method of scalloping 2.2 Determine the interrelationship between correctly scalloped combs and shearing performance in terms of density of wool, time of year, and breed 2.3 Scallop combs to meet the shearing style of individual shearers

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG402A Conduct equipment experting for machine shearing

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG402 Conduct equipment experting for machine shearing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must be observed conducting equipment experting for machine shearing.

The candidate must provide evidence that they can:

- trim and finish combs
- scallop combs
- identify work health and safety hazards and implement safe work practice

Knowledge Evidence

The candidate must demonstrate knowledge of:

- different types of combs and cutters
- trimming and finishing techniques
- tools and equipment used in experting
- scalloping techniques
- the relationship of comb preparation to shearing performance.
- work health and safety legislation and codes of practice applying to the job role

Assessment Conditions

Competency is to be assessed in the workplace or workplace and simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG403 Account for shearing shed supplies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to account for shearing shed supplies.

All work must be carried out to comply with workplace procedures and legislative requirements.

This unit applies to individuals who take responsibility for their own work and use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine supplies for shearing	1.1 Prepare a list of required supplies 1.2 Determine and record existing supplies

Element	Performance criteria
	1.3 Identify required storage facilities
2. Obtain supplies for shearing	2.1 Identify an appropriate supplier of required goods 2.2 Order and purchase supplies prior to commencement of shearing operations 2.3 Arrange delivery of supplies
3. Record supplies for shearing	3.1 Maintain stores inventory for duration of shearing 3.2 Store supplies appropriately 3.3 Prepare stores account and submit to the grower

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG403A Account for shearing shed supplies

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG403 Account for shearing shed supplies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine supplies for shearing
- identify appropriate supplier and order supplies
- maintain stores inventory for duration of shearing and prepare stores account

Knowledge Evidence

The candidate must demonstrate knowledge of:

- supplies required to support shearing operations
- procedures for ordering supplies and purchasing
- required books of account and GST requirements associated with shearing shed supplies
- record keeping systems

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG405 Arrange employment for shearing operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to arrange employment for shearing operations.

All work must be carried out to comply with workplace procedures and legislative requirements.

This unit applies to individuals who take responsibility for their own work and use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine staffing requirements	1.1 Assess the numbers and types of staff required for wool harvesting

Element	Performance criteria
	1.2 Prepare a list of duties for additional staff 1.3 Define the required capabilities of staff prior to selection
2. Seek applicants	2.1 Make informal enquiries and advertise vacancies 2.2 Follow up possible staff by telephone and in person
3. Select staff	3.1 Interview potential staff against selection criteria 3.2 Select staff with due regard to equal employment opportunity
4. Induct staff	4.1 Brief new staff on relevant awards, enterprise agreements, pay rates and related administration 4.2 Advise new staff of terms and conditions and sign on 4.3 Familiarise new staff with the workplace and colleagues 4.4 Outline work health and safety and animal welfare requirements in detail to staff

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG405A Arrange employment for shearing operations

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG405 Arrange employment for shearing operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine staff needs
- advertise vacancies and recruit staff
- select and induct staff into shearing team
- carry out induction processes

Knowledge Evidence

The candidate must demonstrate knowledge of:

- industry awards and conditions
- duty statements for each category of wool harvesting staff
- interviewing techniques
- advertising mechanisms for staff vacancies
- telephone techniques
- equal employment opportunity legislation
- staff selection process
- induction procedures.
- work health and safety legislation and animal welfare legislation and codes of practice applying to the job roles

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSHG406 Prepare shearing team wages

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare the wages for shearing teams.

All work must be carried out to comply with workplace procedures, legislative requirements and work health and safety policies.

This unit applies to individuals who take responsibility for their own work and use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Shearing (SHG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Maintain staff records	1.1 Confirm that all employees are signed on and declaration forms are signed

Element	Performance criteria
	1.2 Arrange employment agreements 1.3 Record work 1.4 Total units of work for each employee 1.5 Maintain injury records 1.6 Collect tax file and superannuation numbers and maintain confidentially
2. Calculate earnings	2.1 Obtain relevant awards and current pay rates 2.2 Follow employment contracts and agreements 2.3 Calculate gross earnings for each employee
3. Calculate deductions and net pay	3.1 Calculate taxation deductions 3.2 Complete group certificates 3.3 Forward tax to the Australian Taxation Office 3.4 Calculate and document occupational superannuation 3.5 Forward superannuation payment to appropriate fund
4. Pay staff	4.1 Confirm pays are prepared and staff paid in accordance with the relevant Award 4.2 Arrange cash advances on request

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSHG406A Prepare shearing team wages

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSHG406 Prepare shearing team wages

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- maintain staff records
- calculate earnings, deductions and net pay
- prepare pays and pay slips

Knowledge Evidence

The candidate must demonstrate knowledge of:

- recording systems and maintaining records
- Australian Tax Office requirements including GST and PAYG requirements
- legislative requirements for keeping records of contracts, wage payments and group certificates
- Federal Pastoral Industry Award and/or State Shearing Award of Queensland, and/or Western Australian Shearing Contractors Award

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSOL202 Assist with soil or growing media sampling and testing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assist with the sampling and testing of soil or growing media sampling and testing.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soils and media (SOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Collect soil or media samples for testing	1.1 Discuss task requirements with supervisor and seek clarification where necessary 1.2 Prepare tools and materials for collecting samples

Element	Performance criteria
	1.3 Take and prepare samples as instructed 1.4 Assist with labelling and recording samples if required
2. Perform basic tests on soil or media sample	2.1 Recognise basic features of a soil profile 2.2 Assist with testing or inspecting physical properties of samples 2.3 Assist with testing chemical properties of samples 2.4 Relate soil test results to suitability of the soil or media for growing

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSOL202 Assist with soil or growing media sampling and testing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect soil and media samples
- perform basic descriptive tests for soil texture, salinity and pH
- describe soils or media using commonly used descriptive terms
- assist with the use of simple soil testing equipment for testing pH and salinity
- prepare records of soil sampling results as required

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for recognising soils or growing media properties
 - basic soil or media field tests
 - soil or media chemical properties
 - soil or media physical properties
 - soil or media plant relationships
 - soil sampling techniques

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSOL301 Prepare growing media

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to determine the requirements of a growing media for various plants and preparing and storing the media in accordance with the production specifications.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soils and media (SOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Clarify work instructions with supervisor 1.2 Prepare tools and equipment 1.3 Identify hazards, assess risks and implement control measures 1.4 Select and use personal protective equipment (PPE)

Element	Performance criteria
2. Confirm specifications of growing media	2.1 Investigate and select various media components for specific plant requirements 2.2 Determine nutrient requirements for growing period 2.3 Determine growing media by plant requirements and accepted industry practice 2.4 Investigate sources of nutrients for their suitability 2.5 Analyse growing media for chemical, physical and biological characteristics to confirm suitability for plants 2.6 Determine sterilisation methods of the growing media
3. Prepare and store growing media	3.1 Establish growing media composition 3.2 Maintain soil mixing equipment in a clean and effective condition 3.3 Store components in a safe and hygienic manner 3.4 Weigh and mix components into the growing media 3.5 Dispose of waste in an environmentally safe manner 3.6 Store growing media is stored in safe and hygienic manner 3.7 Keep records

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSOL301A Prepare growing media.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSOL301 Prepare growing media

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect and analyse data
- confirm specifications of growing media
- interpret chemical labels
- prepare growing media
- store growing media

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for preparing growing media
 - alternative methods of incorporating ingredients into a growing media
 - hygiene in the preparation and storage of the media
 - ingredients used in the preparation of growing media
 - physical, chemical and biological characteristics required of the media
 - plant nutrition
 - properties of the various ingredients used in the preparation of the growing media
 - requirements of a growing media
 - volume and weight determination

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSOL303 Implement soil improvements for garden and turf areas

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide information about and determine its suitability for garden beds or turf areas and determine ameliorants or additives to improve it.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soil (SOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare and collect soil samples for testing	1.1 Determine reasons for testing of soil 1.2 Prepare tools and materials for collecting samples

Element	Performance criteria
	1.3 Take samples according to recognised sampling techniques 1.4 Label and record samples
2. Determine physical characteristics of sample	2.1 Conduct tests for texture and structure on the samples 2.2 Determine soil colour and the presence of organic matter 2.3 Determine characteristics of soil profile where required 2.4 Determine depth of topsoil and determine if sufficient for the requirements of the plants to be installed 2.5 Determine the ability of soil to drain or retain water 2.6 Assess the physical characteristics of soil and determine improvements needed
3. Determine chemical characteristics of sample	3.1 Conduct tests for pH and salinity 3.2 Determine the suitability of soil for particular plants 3.3 Determine the soil's fertility and the need for additional fertiliser or other amendments 3.4 Determine the chemical characteristics of soil and improvements needed
4. Prepare soils for planting or replanting	4.1 Improve physical characteristics of garden or lawn areas as required 4.2 Adjust pH and salinity of soil in garden or lawn areas as required 4.3 Incorporate additional soil as needed to establish final levels 4.4 Finish soil level and consolidate ready for planting according to planting plans and enterprise procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - No equivalent.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSOL303 Implement soil improvements for garden and turf areas

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- conduct tests to determine soil physical properties of texture and structure
- conduct tests to determine soil chemical properties of pH and salinity
- make observations about fertility, mineral and organic matter content based on sample colour
- make observations about soil drainage and water holding capacity
- make recommendations to improve soils based on results of simple soil tests

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for providing information on soils or growing media
 - physical properties of soils and media
 - chemical properties of soils and media
 - products and processes for improving soils and media
 - sample collection, testing and methods used to perform tests
 - water holding capacity and readily available water
 - organic matter in soil and media
 - soil ameliorants and improvement techniques
 - nutrient availability in soils

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSOL401 Sample soils and interpret results

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to take a soil sample and interpret the test results.

This unit applies to individuals whose job role includes undertaking soil or growing media sampling and interpreting the results as a foundation for further horticultural operations such as nutrition programs and irrigation scheduling.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soils and media (SOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare for soil sampling	1.1 Identify the soils to be surveyed, surveying activity and contractors 1.2 Select tools, equipment and machinery as required by the testing agency requirements 1.3 Carry out pre-operational and safety checks on tools, equipment and machinery 1.4 Identify areas of homogeneous soil types for sampling 1.5 Locate services in consultation with the supervisor 1.6 Identify work and safety hazards, assess risks and implement controls 1.7 Select and use suitable safety equipment and personal protective equipment (PPE) 1.8 Maintain a clean and safe work area throughout and on completion of work
2. Determine soil characteristics by performing soil sampling	2.1 Determine the density and depth for a representative sampling of the area 2.2 Excavate holes at identified sampling sites 2.3 Collect and prepare, label, package and dispatch samples for off-site testing 2.4 Determine the physical and chemical characteristics of the soil 2.5 Clean and store sampling and testing tools and equipment 2.6 Record results
3. Interpret results of soil analysis	3.1 Classify the soil types of the sample area according to standards for soil classification 3.2 Determine, from published data and records, the acceptable soil physical and chemical parameters for a specified plant 3.3 Compare collected analytical results with acceptable physical and chemical parameters for a specified plant 3.4 Evaluate soil characteristics to determine whether they can be altered to meet plant needs 3.5 Determine the Readily Available Water values for irrigation sites

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSOL401A Sample soils and interpret results.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSOL401 Sample soils and interpret results

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect soil and media samples using appropriate sampling methodology
- file and record analytic results for future use
- implement a nutrient and nutrition program
- prepare soil and media samples for dispatch to soil analysis laboratory
- receive and interpret analytic results

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of soils sampling
 - environmental implications associated with soil surveying activities and the application of analytical results
 - practical understanding of the range of sample collection, testing and analytical methods that may be used to perform soil surveys, and the association of surveying methods with site conditions, environmental implications and intended horticultural use of the surveyed site
 - soil ameliorants and soil improvement techniques for addressing site limitations identified through surveying
 - the capacity of soils to provide water to plants
 - the importance of organic matter in soil in relation to the intended horticultural use
 - the physical and chemical properties of soils in relation to their ability to support specified horticultural production

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSOL402 Develop a soil use map for a property

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a soil use map for a property.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soils and media [SOL]

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Collect information for soil mapping	1.1 Confirm soils samples collected for off-site assessment by soil testing agencies used recommended procedures 1.2 Collect soil physical, chemical and biological information

Element	Performance criteria
	1.3 Determine the acceptable soil parameters for specified plants from published data and records 1.4 Collect information about areas of cultural significance and habitats of biodiversity on the property 1.5 Collate research outcomes
2. Analyse soil information	2.1 Classify the soil types of the sample area according to standards for soil classification 2.2 Compare collected results with established parameters for land use and production 2.3 Evaluate soil characteristics to determine whether they can be altered to meet land use needs 2.4 Determine readily available water values for irrigation sites
3. Plot topography and soil survey data on property map	3.1 Map interpreted results 3.2 Identify potential uses of the soil for purposes of land classing, land capability, areas of cultural significance and habitats of biodiversity 3.3 Define property boundaries and features 3.4 Identify paddocks or irrigation areas 3.5 Plot contour or spot level information 3.6 Plot soil sampling sites on map 3.7 Determine soil profile and irrigation characteristics for each sampling site and irrigation area and index to the map 3.8 Index the Readily Available Water values for irrigation sites 3.9 Plot areas of specific concern on the map and index descriptions to the map

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSOL402A Develop a soil use map for a property.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSOL402 Develop a soil use map for a property

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- analyse survey results
- determine soil characteristics
- identify adverse environmental impact of irrigation activities and take appropriate action
- interpret soil analyses results
- perform a soil survey
- plot topography and soil survey data on a property map

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for developing soil use maps
 - environmental impacts of irrigation, using water from any ground or underground source
 - methods and techniques of soil sampling
 - nutrient availability in soils
 - physical and chemical properties of soils
 - readily available water
 - soil analyses results
 - soil quality factors
 - soil types and profiles
 - soil water retention testing techniques
 - water table and salinity

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSOL403 Prepare acid sulphate soil management plans

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop management plans that address the relevant legislation and issues associated with land and ground water disturbing activities for acid sulphate soil (ASS).

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soils and media [SOL]

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Conduct assessment of the disturbing activity	1.1 Establish and document current or proposed land use following discussions with landholder and relevant consent authority

Element	Performance criteria
for ASS risk	1.2 Assess site data following industry guidelines and relevant consent authority standards 1.3 Establish compliance issues with relevant regulatory authority or environmental legislation or industry procedures 1.4 Communicate site investigations to landholder and establish agreement to develop a management plan in accordance with relevant consent authority requirements
2. Develop ASS remediation or management strategy	2.1 Review field investigation and laboratory test data and match to strategy options consistent with industry principles and relevant consent authority standards 2.2 Identify ASS management options consistent with industry guidelines and relevant consent authority requirements 2.3 Identify and document remediation or management strategies in consultation with the landholder and relevant consent authority
3. Prepare an ASS site management plan	3.1 Check remediation or management strategies against industry guidelines and relevant consent authority requirements 3.2 Incorporate design specifications for structures in management plan details 3.3 Detail monitoring strategies for the site in line with prevailing site factors and relevant consent authority standards 3.4 List on site responsibilities following industry guidelines and relevant consent authority requirements 3.5 Ensure contingency procedures in accordance with industry guidelines and relevant consent authority requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSOL403A Prepare acid sulphate soil management plans.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSOL403 Prepare acid sulphate soil management plans

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect and use field and test data to identify strategies to remediate and manage the site
- complete a desktop assessment of the land for actual and potential ASS risk based on current and proposed land use, site data and compliance issues
- document an ASS management plan and effectively communicate it to the landowner, relevant consent authority and contractors
- support implementation of ASS management plan by reports on materials management and remediation and site rehabilitation

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for preparing acid sulphate soil management plans
 - ASS assessment tools
 - earthmoving principles
 - environmental impact issues
 - environmental impacts of ASS
 - environmental plans, strategies and options for management and remediation
 - managing acid leachate water flows
 - planning process for remediation and management plans
 - principles of duty of care and due diligence
 - relevant environmental, planning and groundwater legislation
 - soils and soil chemistry
 - subsurface and surface drainage principles and systems

- total catchment issues

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSOL404 Supervise acid sulphate soil remediation and management projects

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise acid sulphate soil (ASS) remediation and management projects.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soils and media (SOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan implementation	1.1 Review and relate plans and specifications to the works site 1.2 Plan and record work sequences in line with proposed work

Element	Performance criteria
	schedule 1.3 Maintain compliance with established regulatory planning and environmental legislation
2. Carry out environmental site induction	2.1 Communicate specific site environmental and OHS issues to all stakeholders 2.2 Describe project objectives to all stakeholders, noting individual responsibilities and duty of care 2.3 Brief plant operators, contractors and other staff on special aspects of performance relating to using specific equipment and handling hazardous materials 2.4 Determine monitoring requirements for the site and identify individual responsibilities as stated in the approved plan
3. Direct implementation of planned works	3.1 Complete works stages 3.2 Maintain works specifications and regulatory requirements 3.3 Implement contingency procedures
4. Monitor works specifications and site environment	4.1 Review works and site environment to ensure specifications, contracts and targets are in accordance with the approved plan 4.2 Provide instructions to staff and contractors 4.3 Make changes to works in consultation with the approved plan provider

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSOL404A Supervise acid sulphate soil remediation and management projects.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSOL404 Supervise acid sulphate soil remediation and management projects

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- review Acid Sulphate Soil (ASS) management plan and plan the work
- document and communicate objectives of the project, as well as environmental and work health and safety issues, to stakeholders and individual contractors
- carry out the works identified in the (ASS) management plan in compliance with regulatory requirements and work specifications
- monitor completed works and carry out modifications in consultation with the approved plan provider where necessary

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of acid sulphate soil remediation
 - Acid Sulphate Soil (ASS) and soil chemistry
 - equipment most suited to ASS site remediation and management
 - Quality Assurance systems, processes and practices
 - relevant environmental, planning and groundwater legislation
 - subsurface and surface drainage principles and systems

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSOL501 Monitor and manage soils for production projects

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor and manage soils for production projects.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soils and media (SOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research information about soil	1.1 Research and analyse soil type, characteristics and properties 1.2 Identify particular soil properties that are relevant to the workplace and research for further enquiry

Element	Performance criteria
	1.3 Determine, from published data and records, acceptable soil physical and chemical parameters for a specified crop 1.4 Identify relevant properties of soils and areas of homogenous soils for testing 1.5 Take soil samples from the land under production 1.6 Collect, package, label and dispatch soil samples according to testing agency requirements
2. Apply information from soil testing to production and/or management plan	2.1 Classify soil types from the sample area according to standards for soil classification 2.2 Compare results from soil testing with the identified soil physical and chemical parameters for the specified crop 2.3 Compare results from soil testing with soil records and production history 2.4 Review the comparative results and record differences 2.5 Develop production or management plan and record testing and comparative results
3. Develop soil amendment practices	3.1 Identify soil properties capable of being ameliorated 3.2 Identify relevant soil ameliorants or cultural practices and include in production plan 3.3 Cost soil ameliorating activities and include in production plan 3.4 Quantify and purchase soil ameliorants
4. Monitor soil amendment practices	4.1 Sample areas of ameliorant activities for testing across a representative sampling area 4.2 Analyse results to measure the performance of soil amelioration activities 4.3 Record monitoring program and include in the production plan
5. Review and document the soil management plan	5.1 Record analysis of the sampling methods and amend methods as required 5.2 Review monitoring program, amend for effectiveness and record 5.3 Document production plan incorporating reviews and reports

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSOL501A Monitor and manage soils for production.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSOL501 Monitor and manage soils for production projects

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify particular soil properties that are relevant to the workplace and research for further enquiry
- apply information from soil testing to production and/or management plan
- develop and conduct soil improvement programs
- document the soil management plan or production plan
- interpret soil analytical data for the purposes of developing management or production plans
- review and analyse ongoing soil monitoring programs

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for managing soils for production
 - basic soil field tests
 - interpreting laboratory results
 - plant nutrition through soil management
 - soil chemical properties
 - soil conservation strategies and sustainable production techniques
 - soil physical properties
 - soil sampling techniques
 - soil types
 - techniques to ameliorate soil properties

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSOL502 Manage soils to enhance sustainability

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency standard covers the process of assessing soil characteristics, developing and implementing a plan to improve the health of soils, and monitoring and reviewing the results.

Soil chemistry, physical chemistry and biology are used in understanding the analysis of soil tests, and the importance of the role of soil biota in soil structure and plant nutrition. Strategies to combine improved production with improved soil biota are considered, and the opportunity to increase biodiversity by strategic use of unproductive land is covered.

Healthy soils are the basis of all sustainable land-based production systems. The principles of developing healthy soils involve improving soil structure, increasing soil macronutrients and micronutrients to optimum levels, balancing exchangeable cations, achieving optimum pH, eliminating toxic nutrient levels, and enhancing activity of soil biota.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit is applicable to persons who have a role in managing a land based production business. This unit is likely to require consultation with external experts, such as pasture consultants, fertiliser representatives, contractors, extension officers from State Agricultural Departments, agronomists and producer groups.

No occupational licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soils (SOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify characteristicsof Australian soils to assess their currenthealth	1.1 Identify the common characteristics of Australian soils and their limitations 1.2 Refer to a paddock assessment to establish soil characteristics 1.3 Research soil biota and its relationship to soil fertility 1.4 Evaluate current production practices in terms of their possible contribution to land degradation and soil problems 1.5 Identify and select appropriate land preparation methods matched to machinery and equipment to maintain and improve soil productivity and structure
2. Develop a plan to improve and maintain the health of soils	2.1 Identify the impact of weather and climate on operational activities on soil structure and fertility and develop contingency plans to account for climatic or other events 2.2 Interpret soil test analysis and compare with historical data in the development of a plan 2.3 Select required nutrient balance levels to improve soil fertility for effective use and uptake of plants 2.4 Evaluate alternative strategies or products to improve soil fertility 2.5 Develop a soil amendment strategy including soil ameliorating activities and soil ameliorant products to enhance sustainability of soil health 2.6 Select appropriate production crops suitable for soil type and climate for a land use rotation plan to improve or maintain soil productivity 2.7 Determine soil conservation strategies to minimise soil erosion and increase soil capacity productivity and sustainability 2.8 Assess the environmental implications of chemical use, consider and document alternative methods and organic preventive methods 2.9 Develop a plan to improve and maintain the health of soils 2.10 Develop a plan to monitor soil health and productivity 2.11 Communicate the plan and the system to monitor and record soil health to stakeholders
3. Implement plan for	3.1 Implement a schedule for soil improvement taking into account

Element	Performance criteria
improvement and maintenance of a healthy soil	seasonal, geographical and resource factors and stock/crop rotation 3.2 Implement strategies to integrate the most suitable methods of soil improvement operations with the proposed land use rotation plan 3.3 Determine key staff responsibilities for specific implementation processes and allocate duties 3.4 Modify plan to meet all contingencies and communicate with appropriate staff 3.5 Record soil management activities and file in the appropriate manner
4. Review plan, implementation strategy and the outcomes and determine necessary modifications	4.1 Analyse effectiveness of the soil improvement management plan, through evaluation at key points, making adjustments as necessary 4.2 Prepare recommendations for future strategies, based on the analysis of paddock observations and production data to further enhance soil ecosystem and production

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VBP148 Manage soils to enhance sustainability.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSOL502 Manage soils to enhance sustainability

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- research information on soils
- assess soil type, texture and structure in the paddock
- diagnose areas with soil problems or potential soil problems
- diagnose and interpret soil sample test results and determine priorities for improving soil health
- consider and select alternatives including organic products and methods for improving soil health
- calculate amounts of nutrients required and prepare a fertiliser program which reflects needs and priorities
- record and store information
- develop, implement and evaluate a plan to achieve healthy soils through application of soil science
- monitor soil health from the application of soil science

Knowledge Evidence

The candidate must demonstrate knowledge of:

- physical, chemical and biological properties of soils
- soil biota – types, role in cycling nutrients and improving soil structure
- basic chemistry concepts related to interpreting soil test analysis: symbols, elements and compounds; valency, anions, cations; reactions; EC (electrical conductivity), CEC (Cation Exchange Capacity); organic matter; pH and its importance in the availability of nutrients; role of macronutrients and micronutrients in plant nutrition. Concept of limiting factors for production

- basic biology: the chemical basis of plants and animals; basic plant structure and function; plant nutrition; water, proteins, sugar, nitrate, lignin content; extent and nature of soil micro organisms
- natural cycling of nutrients: carbon, nitrogen, phosphorous and the role of soil biota in the cycles.
- factors affecting soil biota: moisture, temperature, aeration, nutrient supply, pH, and organic matter
- possibility of problems with the use of conventional chemical fertilisers including acidification contamination of soil and associated water contamination and harm to soil biota
- alternative methods to improve soil fertility, including products and use of machinery for aeration and mulching
- appropriate timing for fertiliser applications
- strategies to reduce herbicide use and to reduce and recycle waste
- soil conservation strategies and sustainable production techniques
- underground water movement

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSOL503 Manage erosion and sediment control

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the development and implementation of a plan to address existing erosion problems and to prevent further erosion and sediment problems. The development of the plan will address the relevant legislation and issues associated with land disturbing projects. It requires the ability to identify and establish suitable strategies to develop, implement and monitor an erosion and sediment strategy and manage the project from implementation through to completion to achieve required outcomes.

Planning and managing erosion and sediment control measures requires a knowledge of relevant environmental, planning and ground water legislation, erosion and sediment control techniques, setting work specifications and objectives for the property or catchment system.

This unit is applicable to persons who have a role in the managing of the following land based business:

- Agricultural related industries
- Production Horticulture
- Agro- Forestry
- Natural resource management
- Roadside management and civil construction
- Extractive mining industries

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit will require consultation with external experts such as land management consultants, planning authorities, Catchment Management Authority, Landcare, State and Federal Government Departments who provide advice, contractors, neighbours and other interested groups.

No occupational licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soils (SOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Conduct a property or catchment audit and identify areas with erosion and sediment problems	1.1 Identify soils susceptible to erosion and sediment loss and relationship to land classes for erosion potential 1.2 Conduct a property or site audit and document details using appropriate methodology 1.3 Identify and classify types of erosion and sediment loss 1.4 Identify the environmental and man made factors that influence rates and effects of erosion and sediment 1.5 Estimate the economic and environmental losses caused by erosion and sediment losses 1.6 Identify appropriate external sources of support to assist in the planning processes 1.7 Identify relevant regulatory planning authorities or environmental legislation for current project and future planning developments
2. Develop erosion and sediment control plan	2.1 Investigate erosion and sediment control measures consistent with industry principles 2.2 Develop erosion and sediment control strategy/s for project area and record in co-operation with land owner, relevant government and planning authorities and any other key stakeholders 2.3 Identify potential problems that may require future rectification and modification to original strategies 2.4 Develop erosion and sediment control plan to meet design specifications including environmental concerns, physical impacts, land use, production systems and key personnel 2.5 Develop monitoring processes for evaluating and reporting performance against erosion and sediment control plan for achieving short and long-term outcomes

Element	Performance criteria
	2.6 Determine roles and responsibilities to all key personnel and stakeholders
3. Implement and manage the erosion and sediment control plan	3.1 Implement tasks in accordance with erosion and sediment control plan and structure specification 3.2 Manage the communication process including strategies for conflict resolution and problem solving 3.3 Monitor progress to ensure time, performance, cost and quality of work is achieved 3.4 Investigate and negotiate proposed variations in consultation with all key stakeholders
4. Evaluate the erosion and sediment control plan	4.1 Conduct inspection to review work completion and collate monitoring data 4.2 Identify alterations or modifications to the development plan and report to industry sector personnel, developer or consenting authority 4.3 Review outcomes of completed erosion and sediment control plan against agreed short and long term objectives and report to all key stakeholders

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VBP149 Manage erosion and sediment control.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSOL503 Manage erosion and sediment control

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify appropriate erosion and sediment control strategy methods
- prepare plans and reports on erosion and sediment control plans
- develop an erosion and sediment control plan
- communicate and collaborate effectively with all stakeholders for planning and conflict resolution
- implement work health and safety control measures at site work operations
- monitor, evaluate and analyse effectiveness of erosion and sediment plan outcomes
- organise required resources and key stakeholders

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environment sustainability as a whole farm system approach
- environmental issues with regard to water catchment, ecosystems, habitats and waste minimisation
- relevant environmental, planning and groundwater legislation including licences and permits to implement erosion and sediment control activities
- erosion control and design principles
- planning processes for erosion and sediment control
- project and risk management techniques and tools for the management of erosion and sediment control
- soils and soil formation
- earthmoving principles
- work health and safety obligations and "Duty of Care"

- subsurface and surface drainage principles and systems

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSOL504 Develop and manage a plan to reclaim land affected by salinity

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the development and management of a plan to reclaim salt affected land for profitable, sustainable agricultural production. The plan will include the assessment of the area to determine the source of the salt, the level of salinity and the extent of the infestation as well as plan to reduce flooding and the effect of water logging on the soil. The plan will recommend strategies to be used to reclaim the land. The cost of the plan will be calculated. Plant and pasture establishment and management methods will be recommended for saline sites. Management of the reclaimed area is intended to increase production and profitability. The plan will include strategies for prevention of further salinity problems and for community involvement to reduce salinity in the area.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit is applicable to a person who has a role in managing the farm. This unit is likely to require consultation with a range of external institutions, groups, government departments and individuals.

No occupational licensing, legislative, regulatory or certification requirements apply to this competency at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soils (SOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Review the saline area to increase productivity	1.1 Map the property and determine the type and severity of the salinity and install fencing to subdivide classes of land and salt affected areas for appropriate management of each area 1.2 Assess area for water logging, determine the cause and recommend strategies to divert water or drain water from the area 1.3 Review and select suitable plant and pasture species and management options available to reclaim the saline area 1.4 Calculate the cost and the beneficial returns of reclaiming the area including financial, environmental and social benefits 1.5 Outline the management for the reclaimed area to protect it at vulnerable times of the year and certain times in the plant reproduction cycle
2. Develop a plan to manage water use and movement	2.1 Install fencing to protect the watercourses through the property 2.2 Test and modify salinity and pH of the water entering and leaving the property 2.3 Calculate the water used by the enterprise and establish targets to reduce the quantity by improving irrigation methods and general management practices
3. Develop a plan to protect and manage natural areas	3.1 Plan a strategy to protect the natural area from increased salinity and other stresses that will accelerate decline 3.2 Develop strategies to increase biodiversity 3.3 Plan to manage soil structure and fertility to improve soil biota 3.4 Identify review indicators and develop the long-term plan
4. Implement a strategy to reduce salinity in the area	4.1 Work with adjacent properties and relevant other authorities and community groups to reduce extent and cause of local saline areas by monitoring quality and quantity of water 4.2 Monitor improvements in productivity and review against current leading edge and research developments

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VBP150 Develop and manage a plan to reclaim land affected by salinity.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSOL504 Develop and manage a plan to reclaim land affected by salinity

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess land forms and soil types
- determine categories of saline land
- take soil and water samples for testing
- calculate optimum stocking rate
- identify indicator plant species
- assess the level of degradation and damage through salinity
- research the latest innovations and management techniques
- manage the crop and animal enterprise selected for the farm to utilize the saline area
- calculate the costs of the project
- calculate benefits of salinity reduction to the enterprise and the property
- work with producers and community groups

Knowledge Evidence

The candidate must demonstrate knowledge of:

- salt tolerant plant and pasture species and the management of each
- range of methods for reclaiming saline land
- strategies to profit from the saline area
- value of using natural species and natural systems to improve farm production
- benefits of biodiversity on plant production and the animal enterprise
- strategic and responsible use of susceptible land
- consequences of poor management or removal of vegetation on the land

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSP0301 Operate a screen cleaner for seed processing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate screen cleaners to process seed. It applies to the operation of screen cleaners and aspirators for cleaning or processing commercial quantities of seed. Workers operate with some judgement and discretion and work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed processing (SPO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select and prepare a screen cleaning	1.1 Select and prepare screen cleaning machinery and equipment to job requirements and confirm against work plan

Element	Performance criteria
machine for use	1.2 Complete routine pre-operational checks of the machine to manufacturer's specifications and enterprise requirements 1.3 Recognise workplace health and safety hazards in the workplace and assess and minimise risks
2. Operate a screen cleaning machine	2.1 Operate machinery and equipment in a safe and controlled manner and monitor for performance and efficiency 2.2 Anticipate risks to self, others and the environment and implement minimisation strategies accordingly 2.3 Select, use, maintain and store suitable personal protective equipment (PPE) 2.4 Report environmental implications associated with machinery operation
3. Complete and report on the seed cleaning operation	3.1 Complete shut-down procedures to manufacturer's specifications and enterprise requirements 3.2 Complete and maintain screen cleaning machinery and equipment operational records 3.3 Report malfunctions, faults and observation of irregular performance of screen cleaning machinery and equipment 3.4 Clean, secure and store screen cleaning machinery and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSP0301A Operate a screen cleaner for seed processing.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSP0301 Operate a screen cleaner for seed processing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assemble and operate a screen cleaner
- assess the input and outputs of the screen cleaner
- complete and report on cleaning operation
- define the processing requirements of a seed processing job
- disassemble and clean a screen cleaner
- select and place screens and prepare machinery for use

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for operating a screen cleaner
 - ball trays and their purpose
 - documentation associated with seed cleaning
 - machinery safety
 - possible contamination points
 - required maintenance and usual wear points
 - screen types and designs
 - the adjustment and effect of airflow within each of the screen cleaner's chambers
 - the correct clean down procedure
 - the different types of screen cleaners available for the task
 - types of impurities and the machine's ability to handle impurities

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSP0302 Operate an indent cylinder

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate an indent cylinder for cleaning or processing seed. It applies to the operation of indent cylinders for cleaning or processing commercial quantities of seed. Workers operate with some judgement and discretion and work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed processing (SPO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select and prepare an indent cylinder length	1.1 Select and prepare an indent shell or cylinder to job requirements and confirm against work plan

Element	Performance criteria
separator for use	1.2 Complete routine pre-operational checks of the machine to manufacturers' specifications and enterprise requirements 1.3 Recognise work health and safety hazards in the workplace and assess and minimise risks
2. Operate an indent cylinder length separator	2.1 Operate machinery and equipment in a safe and controlled manner and monitor for performance and efficiency 2.2 Anticipate risks to self, others and the environment and implement minimisation strategies accordingly 2.3 Select, use, maintain and store suitable personal protective equipment (PPE) 2.4 Report environmental implications associated with machinery operation
3. Complete and report on indent cylinder length separator operation	3.1 Complete shut-down procedures to manufacturer's specifications and enterprise requirements 3.2 Complete and maintain operational records 3.3 Report malfunctions, faults and observation of irregular performance of indent cylinder and equipment 3.4 Disassemble an indent cylinder length separator 3.5 Clean, secure and store indent cylinders

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSPO302A Operate an indent cylinder.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSP0302 Operate an indent cylinder

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- select the correct indent cylinder type and prepare machine for use
- assess the product input and outputs of the indent cylinder length separator
- determine the limitations of an indent cylinder machine and make adjustments to achieve a desired outcome
- disassemble an indent cylinder length separator
- operate an indent cylinder seed length separator machine
- complete and report on indent cylinder length separator operations

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for operating indent cylinders
 - indent cylinder types and sizes
 - machine design and configurations
 - machinery safety
 - operation of a indent cylinder length separator

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSP0303 Operate a gravity table

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate a gravity table to clean or process seed. It applies to the operation of gravity tables for cleaning or processing commercial quantities of seed. Workers operate with some judgement and discretion and work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed processing (SPO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Set up and prepare gravity table for use	1.1 Prepare a gravity table to job requirements and confirm against work plan

Element	Performance criteria
	1.2 Complete routine pre-operational checks of the machine to manufacturer's specifications and enterprise requirements 1.3 Recognise work health and safety hazards in the workplace and assess and minimise risks
2. Operate a gravity table to process seed	2.1 Operate machinery and equipment in a safe and controlled manner and monitor for performance and efficiency 2.2 Anticipate risks to self, others and the environment and implement minimisation strategies accordingly 2.3 Select, use, maintain and store suitable personal protective equipment (PPE) 2.4 Report environmental implications associated with machinery operation
3. Complete and report on gravity table operation	3.1 Complete shut-down procedures to manufacturer's specifications and enterprise requirements 3.2 Complete and maintain operational records 3.3 Report malfunctions, faults and observation of irregular performance of gravity table 3.4 Disassemble gravity table after operations 3.5 Clean gravity table and associated components

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSPO303A Operate a gravity table.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSP0303 Operate a gravity table

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess the product input and outputs of the gravity table
- make adjustments to the gravity table settings to maximise the output
- set up and prepare gravity table for use
- perform basic maintenance of gravity table
- report on gravity table operations
- disassemble and clean gravity table and associated components after operation

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for operating gravity tables
 - cleaning strategies
 - deck types and designs and their effects on operational effectiveness
 - machine capabilities and settings
 - machinery safety
 - seed biology and damage to seed by mechanical action
 - the adjustment and effect of airflow, oscillation and deck angle
 - the principles of gravity separation
 - types of available gravity tables

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSP0304 Operate seed modification machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate seed modification or seed alteration machinery and equipment such as de-awners. Workers operate with some judgement and discretion and work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed processing (SPO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select and prepare seed modification machinery and	1.1 Prepare seed modification machinery to job requirements and confirmed against work plan 1.2 Complete routine pre-operational checks of the machine to

Element	Performance criteria
equipment for use	manufacturer's specifications and enterprise requirements 1.3 Recognise work health and safety hazards in the workplace and assess and minimise risks
2. Operate seed modification machinery and equipment	2.1 Operate seed modification machinery in a safe and controlled manner and monitor for performance and efficiency 2.2 Anticipate risks to self, others and the environment and implement minimisation strategies accordingly 2.3 Select, use, maintain and store suitable personal protective equipment (PPE) 2.4 Report environmental implications associated with machinery operation
3. Complete and report on seed modification machinery and equipment operation	3.1 Complete shut-down procedures to manufacturer's specifications and enterprise requirements 3.2 Complete and maintain machinery and equipment operational records 3.3 Report malfunctions, faults and observation of irregular performance of seed modification machinery and equipment 3.4 Clean, secure and store machinery and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSPO304A Operate seed modification machinery.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSP0304 Operate seed modification machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify the need for a particular line of seed to be modified
- set up and prepare machinery for use
- operate seed modification machinery
- report on seed modification machinery and equipment operation

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for operating two kinds of seed modification machinery
 - safe machinery operation
 - seed biology; coleoptiles
 - damage caused to seed by modification machinery such as de-awners/clippers, scarifiers, rice huskers etc.
 - the principles of operation and the expectations and limitations, maintenance and safety associated with seed modification machinery

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSP0305 Operate seed treatment machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to apply a range of treatments or modifications to seed using seed treatment machinery and equipment such as coating machinery and chemical treatment machinery. Workers operate with some judgement. Work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed processing (SPO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select and prepare seed treatment machinery	1.1 Select and prepare machinery and equipment to job requirements and confirm against work plan

Element	Performance criteria
and equipment for use	1.2 Complete routine pre-operational checks of the machine to manufacturer's specifications and enterprise requirements 1.3 Recognise work health and safety hazards in the workplace and assess and minimise risks
2. Operate seed treatment machinery and equipment	2.1 Operate machinery and equipment in a safe and controlled manner and monitor for performance and efficiency 2.2 Anticipate risks to self, others and the environment and implement minimisation strategies accordingly 2.3 Select, use, maintain and store suitable personal protective equipment (PPE) 2.4 Report environmental implications associated with machinery operation
3. Complete and report on seed treatment machinery and equipment operation	3.1 Complete shut-down procedures to manufacturer's specifications and enterprise requirements 3.2 Complete and maintain seed treatment machinery and equipment operational records 3.3 Report malfunctions, faults and observation of irregular performance of seed treatment machinery and equipment 3.4 Clean, secure and store seed treatment machinery and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSP0305A Operate seed treatment machinery.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSP0305 Operate seed treatment machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- set up and prepare seed treatment machinery for use
- calculate, calibrate and measure dose rates
- formulate a chemical mix to achieve the best treatment
- operate seed treatment machinery and equipment
- complete and report on seed treatment machinery and equipment operation

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for operating seed treatment machinery
 - basics of programmable logic controller/treatment control systems and electrical process
 - chemical types and classes
 - difference between coating and pelleting [<5% weight gain film coating (insecticide/fungicide) or >5% weight gain is pelleting]
 - disposal of waste chemical
 - hazards of chemicals
 - labelling requirements associated with coated seed
 - methods of applying chemical and basic recipe formula
 - methods of applying powders
 - personal protective equipment (PPE)
 - procedures for drying, scalping and aspiration of treated seed
 - rules and regulations for storage, transportation and bunding

- the expectations and limitations of different types of seed coating machines
- the interaction of biological components and their effect on other chemicals, powders, polymers and heat
- the use and differences in biological components in seed coatings
- types of seed treatment machinery and equipment

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSP0306 Operate specialised seed processing machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate specialised seed processing machinery and equipment such as spiral and colour separators. Workers operate with some judgement and discretion and work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed processing (SPO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select and prepare specialised seed processing machinery	1.1 Select and prepare specialised machinery and equipment to job requirements and confirm against work plan 1.2 Complete routine pre-operational checks of the machine to

Element	Performance criteria
and equipment for use	manufacturer's specifications and enterprise requirements 1.3 Recognise work health and safety hazards in the workplace and assess and minimise risks
2. Operate specialised seed processing machinery and equipment	2.1 Operate machinery and equipment in a safe and controlled manner and monitor for performance and efficiency 2.2 Anticipate risks to self, others and the environment and implement minimisation strategies accordingly 2.3 Select, use, maintain and store suitable personal protective equipment (PPE) 2.4 Report environmental implications associated with machinery operation
3. Complete and report on specialised seed processing machinery and equipment operation	3.1 Complete shut-down procedures to manufacturer's specifications and enterprise requirements 3.2 Complete and maintain specialised machinery and equipment operational records 3.3 Report malfunctions, faults and observation of irregular performance of specialised seed processing machinery and equipment 3.4 Clean, secure and store machinery and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSP0306A Operate specialised seed processing machinery.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSPO306 Operate specialised seed processing machinery

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- set up and prepare specialised seed processing machinery for use
- operate two kinds of specialised seed processing machinery
- report on specialised seed processing machinery and equipment operation

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for operating two kinds of specialised seed processing machinery
 - safe operation of machinery
 - the basic principles and operation of airlegs
 - the basic principles and operation of colour sorters
 - the basic principles and operation of floatation tanks
 - the basic principles and operation of magnetic rollers
 - the basic principles and operation of seed dryers
 - the basic principles and operation of seed sizing equipment
 - the basic principles and operation of seed spirals
 - the basic principles and operation of velvet rollers

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSP0307 Handle, package and store commercial quantities of seed

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to store and handle processed seed and all methods of transfer of the product from grading to packaging and storage. Work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed processing (SPO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select and prepare seed packaging and	1.1 Select and prepare seed transferring, storing, packaging and labelling machinery and equipment to job requirements and

Element	Performance criteria
labelling machinery and equipment for use	confirm against work plan 1.2 Complete routine pre-operational checks of the machine to manufacturer's specifications and enterprise requirements 1.3 Check information for labelling against work orders and job descriptions 1.4 Report machine performance, efficiency and irregularities 1.5 Recognise work health and safety hazards in the workplace and assess and minimise risks
2. Operate seed transferring, storing, packaging and labelling machinery and equipment	2.1 Operate machinery and equipment in a safe and controlled manner and monitor for performance and efficiency 2.2 Anticipate risks to self, others and the environment and implement minimisation strategies accordingly 2.3 Select, use, maintain and store suitable personal protective equipment (PPE) 2.4 Report environmental implications associated with machinery operation
3. Complete and report on seed transferring, storing, packaging and labelling machinery and equipment operation	3.1 Complete shut-down procedures to manufacturer's specifications and enterprise requirements 3.2 Complete and maintain seed transferring, storing, packaging and labelling machinery and equipment operational records 3.3 Report malfunctions, faults and observation of irregular performance of seed transferring, storing, packaging and labelling and equipment 3.4 Clean, secure and store machinery and equipment
4. Move and store packaged seed	4.1 Handle and load packaged seed onto pallets ready for moving and storage 4.2 Store and retrieve packaged seed

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSP0307A Handle, package and store commercial quantities of seed.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSP0307 Handle, package and store commercial quantities of seed

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- label and stencil seed bags
- move and store packaged seed
- operate a pallet wrapper to shrink wrap palletised seed
- operate bag and pallet transportation systems
- operate bulk seed transportation equipment
- operate industrial sewing machines
- operate label printers and label and apply stickers and labels
- operate packaging and labelling machinery
- operate palletising equipment
- perform basic machinery maintenance
- prepare packaging
- seal seed packages
- set up and prepare machinery for use

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for handling commercial quantities of seed
 - alternative methods of bag sealing
 - associated regulations and legislation that covers labelling of packaged seed
 - basic equipment maintenance
 - bulk seed storage
 - chemical warnings and the seed details that must be put on the bag

- enterprise labelling requirements
- enterprise storage plans
- machinery and workplace safety
- packaged product transport and storage
- seed packaging methods and equipment
- types of packaging

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSP0308 Sample seed before and after processing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to sample seed on arrival at a processing plant and after processing for quality and certification purposes. Workers operate with some judgement and discretion and work would normally be carried out under minimal supervision within enterprise requirements and procedures.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed processing (SPO)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Sample seed before cleaning or processing	1.1 Prepare the seed lot for sampling in accordance with job requirements 1.2 Select sampling equipment for use in accordance with the type of

Element	Performance criteria
	seed and the job requirements 1.3 Inspect samples visually for contaminants 1.4 Record or report results of sampling 1.5 Direct seed load for storage as appropriate 1.6 Label, record and store samples
2. Sample seed after processing	2.1 Prepare the seed lot for sampling in accordance with job requirements 2.2 Select sampling equipment for use in accordance with the type of seed and the job requirements 2.3 Take samples using specified sampling techniques 2.4 Batch and label samples 2.5 Package samples with accompanying notation and forward to relevant authorities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSP0308A Sample seed before and after processing

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSP0308 Sample seed before and after processing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- carry out moisture testing, temperature and seed density tests in accordance with enterprise requirements
- complete relevant sampling documentation
- package and label seed samples
- prepare samples for despatch
- recognise common weed seeds and other seed contaminants
- record workplace information about seed samples
- sample graded and/or treated seed
- sample seed from a truck on arrival at a processing plant using appropriate sampling techniques
- sample seed in bulk containers and/or sacks using appropriate sampling techniques
- select and evaluate the sampling equipment to provide a representative sample within the guidelines of the relevant certification authority
- take seed samples for testing by other agencies
- use appropriate recording and labelling techniques
- use tools for sampling and prepare a sample for despatch

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of seed sampling
 - correct methods of sampling
 - personnel protective equipment used for sampling treated seed

- relevant workplace records and other documentation
- seed handling and the importance of seed moisture content at all stages of the cleaning process
- the controlling bodies of seed movement - Australian Quarantine and Inspection Service (AQIS), the Organisation for Economic Co-operation and Development (OECD), the Association of Official Seed Certifying Agencies (AOSCA) and other certification agencies
- seed types that require sampling

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSUS501 Develop and manage a plan for sustainable supply and use of water on a farm

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the development and management of a plan to provide a reliable supply of quality water on a property. The plan will review trading rules and regulations and the costs associated with supply and use of all classes of water. Testing of water is undertaken to assess suitable quality for stock, domestic and irrigation purposes. The plan will include efficient use of minimum quantity of water and maintain the quality of the water in storage and the reticulation system. New farming practices can be improved by the selection and management of pastures and crops. Water is managed to protect sensitive areas from degradation. New and innovative methods of treatment and re-cycling are assessed. The quality of water leaving the farm and down-stream impact is monitored.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit is applicable to persons who have a role in managing the farm. This unit is likely to require consultation with external experts, such as water authorities, shire council planning personnel, irrigation suppliers and State Government departments.

No occupational licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Sustainability (SUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a plan for strategic and sustainable use of water on the farm	1.1 Determine the feasibility of trading water on the short term profitability of the farm and the long term implications 1.2 Contact the authorities to determine rules and regulations for the trading and use of water 1.3 Investigate the availability of different classes of water and the regulations for its use and select suitable crops for each class 1.4 Select appropriate recycling options in the whole farm plan 1.5 Analyse purification options on the basis of their merits and suitability for the environment and the enterprise 1.6 Evaluate information from water management specialists and incorporate in relevant aspects of water management 1.7 Review options, develop and implement strategies to use water efficiently by computer controlled irrigation systems and remote operation
2. Design a water supply and management system for the farm	2.1 Identify planning parameters that affect the design of the water system 2.2 Carry out water testing to determine the suitability for stock, crops, pesticide and domestic use 2.3 Draw a plan and layout of a farm water system, including provision for drainage, recycling and back up water supply
3. Develop and implement a plan to protect watercourses and water quality on the farm	3.1 Develop a strategy to protect the areas susceptible to degradation and contamination 3.2 Identify the environmental implication of water use and run off 3.3 Work with community groups to plan a strategy for water quality improvement in the district 3.4 Develop a strategy to improve the biodiversity of water storage areas and watercourses

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VBP147 Develop and manage a plan for sustainable supply and use of water on a farm.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSUS501 Develop and manage a plan for sustainable supply and use of water on a farm

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- analyse weather patterns, rainfall and variability
- take water samples for testing and interpret test results
- fence eroded areas, dams, streams and rivers to protect vegetation and water quality
- research and source a wide range of local indigenous plants specific to revegetation area
- select pasture and crop species
- construct drains and effluent collection sites
- calculate the total farm water requirement for the enterprise, natural areas, farmhouse and garden
- analyse financial return from purchased water
- irrigate crops and pastures efficiently
- map erosion, salt and problem areas
- compare pumps and other equipment for energy efficiency
- calculate the cost of production including purchased water, storage, transfer and application
- fill out applications and forms for licensing and registration

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the variation and risk associated with weather patterns
- volume of water used for production and living
- the classes of water required for production
- the various sources of water and suitable storage

- methods of water quality testing
- water efficient pasture and native species
- crop cultivation methods for moisture retention and optimum production
- efficient irrigation practice
- methods of recycling water
- the water cycle
- the impact of water shortage on natural systems
- the causes and consequences of contaminated water
- the legal aspects of licensing, registration and trading of water
- methods of transferring water using renewable energy
- appropriate management when water and rain are limited
- water purchasing and water trading policies and procedures

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSUS502 Develop and manage a plan to improve biodiversity on a farm

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency covers the development and management of a plan to improve the biodiversity on the property with the view to improving profitability and sustainability of the production system, as well as the long-term viability of the farming enterprise. The focus is to protect, enhance and manage natural areas in balance with the production enterprise. Improved biodiversity is considered a core part of the vision for the property, providing improved profitability, personal fulfilment, community benefits, and the long-term sustainability of soil, water, and local flora and fauna.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit is applicable to a person who has a role in managing a farm. This unit is likely to require consultation with family members and a range of external institutions, groups, government departments and individuals.

No occupational licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Sustainability (SUS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Undertake an audit to determine the health and range of biodiversity on the property	1.1 Map the existing features and soil types on the property for protection 1.2 Obtain a list of local native flora and fauna species specific to habitat types and assess the health and diversity of native vegetation areas and isolated trees in comparison to the local or regional list 1.3 Analyse soil samples for chemical and biological content and assess the health and diversity of the grasslands and pasture 1.4 Analyse water samples and assess the health and diversity of the riparian zone
2. Develop and implement a management plan to improve water quality and biodiversity on the farm	2.1 Plan and implement grazing management strategies to achieve the target ground cover for soil protection for natural areas and pasture 2.2 Protect retained vegetation and provide access for pest plant and animal control and continue to monitor biodiversity of these areas 2.3 Develop a plan to restore and revegetate areas to improve number and range of species of flora and fauna 2.4 Monitor water quality and quantity and develop and implement strategies to prevent contamination and reduce run off 2.5 Review all chemicals and fertilisers used on the farm to identify their potential impact with the view to minimising the effects on the biodiversity through reduced use where possible 2.6 Monitor soil fertility and soil biology in pasture by soil testing and develop strategies to improve soil biota 2.7 Develop and implement a plan to control weeds and pests by using methods that reduce the impact on biodiversity 2.8 Apply for funding to assist with biodiversity project work on the farm and in the local community
3. Evaluate benefits of improved biodiversity of the farm	3.1 Estimate the benefits that will include increased financial value from the farm enterprise and the improved sale, resale or capital value of the farm as a result of the improvement in biodiversity 3.2 Identify personal benefits that biodiversity may contribute to the individual, the farm and the wider community 3.3 Identify the benefits to the environment of improved biodiversity 3.4 Survey the number and diversity of flora and fauna species annually on the farm 3.5 Monitor water quality and quantity leaving the property in

Element	Performance criteria
	comparison to initial values and local benchmarks 3.6 Work with Landcare groups and other community groups to develop plans to extend corridors and improve water quality beyond the farm

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - equivalent to VBQU076 Develop and manage a plan to improve biodiversity on a farm.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSUS502 Develop and manage a plan to improve biodiversity on a farm

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess natural areas, vegetation type, species, health and value
- assess vegetation ground cover and the risk of erosion
- identify plants using a field guide and recognise endangered species
- identify weed species using a field guide
- take soil tests and water sample tests and interpret test results
- map natural areas and plan improvements on a whole farm plan
- calculate financial value of planned improvements
- calculate costs and prepare implementation plan for improvements
- record personal and family values and goals
- recognise saline areas
- identify bird, frog and macro-invertebrates and estimate populations by a field survey
- communicate and work co-operatively with Landcare and community groups

Knowledge Evidence

The candidate must demonstrate knowledge of:

- complex interdependence of plants and animals
- greater the biodiversity the greater the resilience to change
- need for maintaining biodiversity within a particular species, maintaining the number of different species, and maintaining the range of ecosystem types
- indigenous plants in revegetation projects
- how to manage pests, diseases and weeds in natural areas
- water cycle

- value of biodiversity on the pasture production and the animal enterprise
- consequences of contamination and pollution of water, air and soil
- methods of restoration and regeneration of vegetation
- benefit of natural areas for personal health, family activities and pleasure
- philosophy of working with nature to improve the environment for future generations
- value of natural areas in improving the aesthetic value of the farm

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF101 Support turf work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide support to other workers in the green keeping and turf production industry.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters. They identify and seek help with simple problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for turf work	1.1 Identify the required materials, tools and equipment according to lists provided 1.2 Conduct checks on materials, tools and report insufficient equipment or faulty items 1.3 Demonstrate correct manual handling techniques used when

Element	Performance criteria
	loading and unloading materials 1.4 Select and check suitable personal protective equipment (PPE) 1.5 Provide turf support according to work health and safety requirements 1.6 Identify and report workplace health and safety hazards
2. Undertake turf work as directed	2.1 Follow instructions and directions and seek clarification 2.2 Interact with other staff and turf users in a positive and professional manner 2.3 Observe enterprise policy and procedures in relation to workplace practices, handling and disposal of materials 2.4 Report problems or difficulties in completing work to required standards or timelines
3. Handle materials and equipment	3.1 Store plant debris and waste material produced during turf work in a designated area 3.2 Handle and transport materials, equipment and machinery 3.3 Maintain a clean and safe work site while completing turf activities
4. Clean up on completion of turf work	4.1 Return materials to store or dispose of 4.2 Clean, maintain and store tools and equipment 4.3 Report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF101A Support turf work.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF101 Support turf work

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assist with turf work as directed
- clean up on completion of turf work
- handle materials and equipment
- prepare materials, tools and equipment for turf work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of turf work
 - mowing patterns and heights
 - safe work practices required at turf work sites
 - turf and facility maintenance practices
 - turf machinery and equipment
 - work health and safety and environmental protection legislation and enterprise procedures

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF201 Assist with turf construction

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to support workers in a team who are constructing soil profiles for the establishment of turf.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for soil profile construction	1.1 Locate services using site and construction plans and in consultation with the supervisor 1.2 Identify work health and safety hazards, assess and report risks 1.3 Select suitable safety equipment for the soil profile construction program

Element	Performance criteria
	1.4 Prepare the construction site according to the construction plan
2. Prepare equipment for soil profile construction	2.1 Select construction tools, equipment and machinery 2.2 Carry out pre-operational and safety checks on tools, equipment and machinery 2.3 Select, use and maintain suitable personal protective equipment (PPE)
3. Undertake soil profile construction	3.1 Grade and consolidate the base to the specified level and on a consistent slope to achieve uniform compaction over the site 3.2 Dig trench lines to the specified depth, width and fall, with all superfluous material evacuated and stored safely
4. Restore the site after drainage and irrigation installation	4.1 Back fill trenches with specified construction materials, consolidate and level 4.2 Level the site as each layer of the soil profile is installed 4.3 Water the site thoroughly on completion 4.4 Remove and dispose of waste material from the site 4.5 Clean, maintain and store tools, equipment and machinery 4.6 Maintain a clean and safe area 4.7 Record or report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF201A Assist with turf construction.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF201 Assist with turf construction

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- clean, maintain and store turf construction machinery and equipment
- follow procedures and sequence work during the course of the construction
- use a range of turf construction machinery and equipment
- work in a team on a turf construction project

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of turf construction
 - different soil preparations for construction
 - effective and safe use of tools and machinery
 - influences on the selection of tools, machinery and safety equipment
 - irrigation and/or drainage installation procedures and operational techniques
 - purpose of turf construction in maintaining turf presentation
 - relationship between a well-constructed soil profile for the quality and appearance of the turf

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF202 Prepare turf surfaces for play

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare sports turf surfaces for play.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare the site to be mown	1.1 Locate services affecting the turf surface using site plans 1.2 Identify permanent obstacles and work health and safety hazards, assess risks and implement controls 1.3 Remove and replace obstacles before and after mowing 1.4 Report abnormal conditions or changes in the appearance of the

Element	Performance criteria
	site
2. Prepare equipment for mowing	2.1 Select appropriate tools, equipment and machinery 2.2 Calibrate the mower and adjust to height according to the manufacturer's guidelines 2.3 Complete pre-operational checks of tools, equipment and machinery 2.4 Select, use and maintain suitable personal protective equipment (PPE) 2.5 Erect suitable safety warning notices during work periods
3. Mow playing surface	3.1 Assess grass appearance and report changes in appearance 3.2 Match the mower to any implement attached to it 3.3 Maintain continuous oversight of mowing activities
4. Undertake final preparation of playing surface	4.1 Select appropriate line marking tools 4.2 Measure lengths and angles to locate markers and match play equipment 4.3 Complete marking out for to the intended playing surface use 4.4 Place markers and play equipment where necessary 4.5 Record or report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF202A Prepare turf surfaces for play.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF202 Prepare turf surfaces for play

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine the condition of the existing surface with advice from senior greenkeepers for subsequent routine preparations, treatments and turf cultural practices
- prepare a turf surface or sports playing field according to the rules of the game
- use turf surface preparation machinery and equipment safely according to manufacturer's specifications to achieve the desired playing surface outcome

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of turf preparation for play
 - competition playing requirements affecting preparation of the turf surface
 - effect of adverse outdoor climatic conditions
 - effective and safe use of tools and machinery
 - high performance uses of turf surfaces
 - irrigation and drainage system design and operational techniques
 - potential public nature of turf renovation work sites
 - purpose of turf surface preparation in maintaining turf presentation
 - various requirements of turf species and their cultural requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF203 Renovate grassed areas

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake basic seasonal renovation practices to restore turf health and condition on a range of grassed areas.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare turf area for renovation	1.1 Locate services using site and construction plans 1.2 Identify work health and safety hazards 1.3 Select suitable safety equipment for the turf renovation program 1.4 Identify and report the environmental implications of the turf renovation program

Element	Performance criteria
	1.5 Carry out preparation of turf area
2. Prepare equipment for turf renovation	2.1 Select appropriate hand tools and renovation machinery 2.2 Carry out pre-operational and safety checks on hand tools and renovation machinery 2.3 Select, use and maintain suitable personal protective equipment (PPE)
3. Undertake turf renovation	3.1 Erect safety barriers around trench lines, holes and other disturbed surfaces during and between work periods 3.2 Use correct manual handling techniques when lifting or moving heavy loads 3.3 Operate turf renovation tools and machinery safely and effectively
4. Complete turf renovation	4.1 Dispose of plant debris and waste material removed from the site in an environmentally aware and safe manner 4.2 Clean, maintain and store tools and machinery 4.3 Maintain a clean and safe area throughout and on completion of work 4.4 Record work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF203A Renovate grassed areas.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF203 Renovate grassed areas

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- establish the purpose of turf renovation programs in maintaining turf presentation, particularly in relation to the end use of the turf
- record turf maintenance activities as required by the enterprise
- transport, clean and store turf renovation machinery and equipment
- use turf renovation machinery and equipment to restore turf health and condition

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of grass area renovation
 - different soil preparations for renovation
 - effect of adverse outdoor climatic conditions
 - effective and safe use of tools and machinery
 - hazards and responsibilities working near public access
 - influences on the selection of tools, machinery and safety equipment
 - potential public nature of turf renovation work sites

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF204 Support turf establishment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish turf by seed, sod or other methods.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to establish a planted area	1.1 Select materials, tools, equipment and machinery for planting 1.2 Carry out pre-operational and safety checks on tools, equipment and machinery 1.3 Identify the environmental implications of the turf establishment program

Element	Performance criteria
2. Prepare the planting area	2.1 Determine layout of services before undertaking earthworks 2.2 Control existing weeds 2.3 Check soil for moisture, tilth, compactness, depth and organic matter 2.4 Apply soil additives as instructed 2.5 Rake the surface evenly to achieve a consistent surface and level as required 2.6 Water the planting site 2.7 Remove and disposed of debris and rubbish
3. Plant turf	3.1 Inspect turf plant material before planting and discard material with defects 3.2 Ensure seed is evenly distributed over the whole planting area with no overlap or areas missed 3.3 Rake surface evenly and water thoroughly 3.4 Position sods and roll evenly onto a moist surface 3.5 Water newly laid turf thoroughly to encourage establishment
4. Provide post-planting care	4.1 Protect the site from animals, pedestrian and vehicular traffic 4.2 Roll the site evenly and efficiently with no disturbance 4.3 Mow turf according to a specified pattern and height 4.4 Apply top dressing evenly to the required depth over the whole area and is work or rub into the surface 4.5 Water dry or under-watered plants 4.6 Check watering patterns for dry spots
5. Complete establishment of the planted area	5.1 Remove and dispose of waste material 5.2 Clean, maintain and store tools, equipment and machinery 5.3 Maintain a clean and safe work area throughout and on completion of work 5.4 Record and report work outcomes to the supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF204A Support turf establishment.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF204 Support turf establishment

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- erect safety equipment
- follow procedures and sequence work during the course of the growing-in period
- handle manual loads correctly
- transport, clean and maintain and store turf establishment machinery and equipment
- use turf establishment machinery and equipment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practice for supporting turf establishment
 - different soil preparations for establishment
 - effective and safe use of tools and machinery
 - requirements of turf species and their cultural requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF301 Construct turf playing surfaces

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to construct soil profiles for the establishment of high-performance sports and recreational turf surfaces.

It applies to the construction of turf playing surfaces in new projects and to the complete renovation of existing soil profiles in sporting, commercial and public recreational open spaces such as golf greens and tees, cricket pitches and other turfed sporting surfaces.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Plan for construction activities	1.1 Identify the construction site and the construction method 1.2 Take representative samples for soil tests 1.3 Locate services and utilities, check depths against the site plan and report discrepancies to the supervisor 1.4 Consider the site history when planning construction details 1.5 Determine likely consequences of site aspect, features and run-off from adjacent sites and incorporated in construction plans 1.6 Identify work health and safety hazards, assess risks, implement controls 1.7 Select, use and maintain suitable safety equipment and personal protective equipment (PPE)
2. Survey and lay out the construction site	2.1 Set up surveying equipment and establish and record existing levels and temporary benchmark 2.2 Set new levels and place pegs according to specifications 2.3 Determine the existing lay of the land and proposed contours 2.4 Shape new contours into the proposed site
3. Prepare for construction work	3.1 Obtain or develop plans for the new construction profile 3.2 Estimate and cost materials 3.3 Schedule work in a logical, timely and effective manner
4. Set out site for construction	4.1 Check and verify boundaries and features against the actual site and existing features 4.2 Check finishing levels, provision for drainage and irrigation to ensure nominated levels are workable 4.3 Check all measurements against the construction plan, peg out the construction area and account for variances
5. Excavate the construction site	5.1 Remove and stockpile excess soil in a designated area 5.2 Grade the base to the level and slope specified in the design 5.3 Consolidate the base of the profile to achieve uniform compaction over the entire site 5.4 Install sub-surface irrigation system components to the required depth and design specified in the plan
6. Install drainage system	6.1 Dig drainage trenches to the depth specified in the plan 6.2 Lay drainage material on the base of the trench, install pipes and cover trenches
7. Install soil profile	7.1 Calculate quantities of material to be spread over the area 7.2 Compact each profile layer to reflect the final contour 7.3 Ensure the interface between profile layers is uniform and unbroken

Element	Performance criteria
	7.4 Mix soil amendments thoroughly and apply evenly over the area 7.5 Give the finished surface a final levelling and consolidate in readiness for planting

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF301A Construct turf playing surfaces.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF301 Construct turf playing surfaces

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine turf construction requirements from plans
- implement a turf construction project
- interpret existing site and construction plans and specifications
- organise work and use tools and equipment for turf construction project

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for constructing turf playing surfaces
 - environmental implications associated with construction and excavation activity, drainage and irrigations systems, soil amendments and waste disposal procedures
 - materials, tools, equipment and machinery available to the enterprise for construction of soil profiles, including soil amendments and base construction materials
 - practical understanding of surveying principles and techniques
 - range of construction methods that may be used to construct soil profiles for high performance turf surfaces, and the association of construction methods with site limitations, environmental implications, and end use of the turf surface
 - soil testing techniques and the application of results to the construction process

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF302 Establish turf

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish turf by sowing, turf laying, sprigging and chaffing or stolonization in sporting, public recreational open space, commercial and residential sites.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Sample soil for testing	1.1 Take and test site soil samples from a representative area 1.2 Use test results to guide soil preparation for establishing turf
2. Plant turf	2.1 Select tools and equipment for the task being undertaken and use safe working practices

Element	Performance criteria
	2.2 Prepare planting site and sow seed or roll out lawn 2.3 Water and top-dress newly planted turf as required
3. Maintain newly established turf	3.1 Water and fertilise newly established turf 3.2 Mow turf according to a specified pattern and height 3.3 Monitor newly established turf, identify problems and report any changes 3.4 Apply top dressing according to the establishment plan
4. Report and repair areas of damaged turf	4.1 Monitor turf condition for quality and repair as necessary 4.2 Prepare work reports and recommendations

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF302A Establish turf.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF302 Establish turf

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- demonstrate turf establishment by sowing, turf laying, sprigging and chaffing/stolonization
- determine turf establishment methods and requirements
- implement successful turf establishment works
- operate and store turf establishment machinery and equipment
- organise work and use tools, equipment and machinery for a turf establishment project

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for establishing turf:
 - common weeds, pests and diseases
 - fertiliser use and application
 - soils and turf nutrition
 - turf identification and growth characteristics
 - turf establishment methods
 - watering practices

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF303 Implement a grassed area maintenance program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain and repair grassed areas.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for grassed area maintenance work	1.1 Clarify with supervisor requirements of the maintenance program 1.2 Identify equipment and material resource requirements according to the scope of the coordination work 1.3 Identify the priorities for maintenance activities and time allocation

Element	Performance criteria
2. Maintain and repair grassed areas	2.1 Mow lawns and trim edges 2.2 Undertake coring and scarifying as necessary 2.3 Undertake top dressing and fertilising as required 2.4 Spread fertiliser as necessary 2.5 Undertake control measures for broad leaf weeds and grass weeds 2.6 Perform repairs to irrigation systems as required
3. Coordinate and report on grassed area maintenance activities	3.1 Instruct machinery operators of appropriate use and their responsibilities in respect to operational maintenance requirements of machinery and equipment 3.2 Monitor personnel, activities, timelines and materials usage 3.3 Recognise contingency situations and take corrective actions 3.4 Prepare a report of work undertaken

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF303A Implement a grassed area maintenance program.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF303 Implement a grassed area maintenance program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- conduct a risk assessment for work in a turf area
- determine the maintenance requirements for a turf area
- carry out weed control measures
- repair irrigation systems
- safely adjust and use turf maintenance machinery and equipment
- coordinate and report on grassed area maintenance activities
- write a report on the maintenance program activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of grassed area maintenance
 - growth rates and cultural requirements of specific turf types
 - methods and practices for maintaining grassed areas
 - range, use and availability of materials, equipment and machinery that may be required for the project
 - turf grass physiology as it applies to grassed area maintenance
 - types of turf and specific maintenance requirements
 - work schedule programming
 - work health and safety issues

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF304 Monitor turf health

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor the health and condition of high performance sports turf playing surfaces.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for monitoring activities	1.1 Identify the turf site to be monitored, the nature and regularity of monitoring and time constraints for delivering reports 1.2 Identify plant tissue and soil analysis consultants and determine their sampling specifications in consultation with the supervisor and/or consultants

Element	Performance criteria
	1.3 Select monitoring tools and equipment
2. Collect soil and plant tissue samples	2.1 Perform on-site soil tests according to testing instrument instructions 2.2 Collect samples for off-site testing from a representative area and prepare, package and despatch 2.3 Replace divots from soil sampling sites and dispose of waste materials 2.4 Clean sampling tools and equipment and return to storage 2.5 Record and compare results of analysis with acceptable parameters 2.6 Make recommendations to address identified deficiencies and to meet target chemical balances
3. Visually monitor turf health	3.1 Assess indicators of turf health visually with reference to researched and experiential awareness 3.2 Identify deficiencies in turf health and quality visually with reference to researched and experiential awareness 3.3 Make reports and recommendations according to the playing requirements and desired objectives of the enterprise

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF304A Monitor turf health.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF304 Monitor turf health

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess turf health
- identify deficiencies and diseases in turf
- inspect and report on the condition of turfed surfaces
- perform soil sampling and analyse results
- prepare turf maintenance recommendations according to the playing requirements and desired objectives of the enterprise

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of turf health
 - botany and turf physiology as it applies to turf health
 - main, simple and compound fertiliser products available to the enterprise including analysis, solubility, salt index, rates and cost
 - rates and regularity of recommended fertiliser and pesticide application to achieve optimum plant health objectives while minimising external environment impact through leaching, excessive spraying and overuse
 - role of trace elements and nutrients required by turf grass plants, and symptoms of toxicities and deficiencies
 - soil and plant tissue analysis as a monitoring and turf management tool, the main elements of analysis and their significance as indicators of nutritional deficiency and toxicity
 - turf grass diseases, including commonly occurring regional diseases, seasonality, site history and visual disease symptoms

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF305 Renovate sports turf

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement renovation or remediation of a sports turf area for minor projects and seasonal renovations in the turf industry.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to renovate turf	1.1 Identify the turf renovation site and extent of works 1.2 Select turf and renovation materials 1.3 Identify work health and safety hazards, assess risks and implement controls

Element	Performance criteria
	1.4 Select, use and maintain safety and personal protective equipment (PPE)
2. Prepare renovation equipment	2.1 Carry out pre-operational and safety checks on tools, equipment and machinery 2.2 Calibrate and adjust tools, equipment and machinery
3. Implement sports turf renovation	3.1 Identify renovation works from the program and schedule work in a sequential, timely and effective manner 3.2 Review renovation tasks and undertake remedial action 3.3 Maintain a clean and safe work area throughout and on completion of work
4. Complete renovation activities	4.1 Remove and dispose of waste material in an environmentally aware and safe manner 4.2 Clean, maintain and store tools, equipment and machinery 4.3 Record and report work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF305A Renovate sports turf.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF305 Renovate sports turf

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- conduct a site hazard identification and risk control assessment
- implement a sports turf renovation program
- prepare, check and calibrate turf renovation machinery and equipment
- record outcomes of renovation works
- renovate a sports turf for successful high performance use
- use turf renovation machinery and equipment to restore turf health and condition

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of turf renovation
 - field measurement techniques such as infiltration rate, organic fines, hardness, traction, surface smoothness, and turf sward height
 - nutrition and plant growth regulators
 - planting, care and renovation scheduling requirements of grass species and cultivars
 - specialist turf renovation practices to achieve high performance turf
 - standards for turf surface appearance and quality
 - structure of a sports turf soil profile

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF401 Develop a sports turf maintenance program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and document a sports turf maintenance program.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Test soil and plant material	1.1 Develop a soil and plant testing program which defines field and off-site testing activities, scheduling and information outcomes 1.2 Implement and monitor testing tasks and undertake remedial

Element	Performance criteria
	<p>action</p> <p>1.3 Present data and readings in a form that can be easily interpreted by the turf manager</p> <p>1.4 Consider seasonal issues affecting test results from information on the turf species and cultivars, historical records and own experience</p> <p>1.5 Determine nutritional status of the turf plant species and cultivars by analysing collected data and comparing with accepted standards</p>
2. Identify the requirements of a sports turf maintenance program	<p>2.1 Define the standards for turf presentation according to client requirements and industry best practice</p> <p>2.2 Identify the different maintenance requirements for a range of conditions over the growing cycle</p> <p>2.3 Select sports turf maintenance procedures to achieve the standards for turf presentation</p> <p>2.4 Identify and confirm availability of resources, tools, equipment and machinery required for the sports turf maintenance program</p> <p>2.5 Determine the most cost-effective approach to maintaining the sports turf playing surface</p>
3. Prepare and document the sports turf maintenance program	<p>3.1 Prepare detailed plan, specifications and quotation based on the requirements of the program</p> <p>3.2 Develop and document on-site procedures and schedules for the sports turf maintenance program</p>
4. Monitor the sports turf maintenance program	<p>4.1 Monitor the program to ensure enterprise standards for presentation of sports turf playing surfaces are achieved</p> <p>4.2 Review the sports turf maintenance program to ensure it remains responsive to changing conditions</p> <p>4.3 Implement appropriate courses of action to overcome shortcomings in the program</p> <p>4.4 Document and report remedial action undertaken to management</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF401A Develop a sports turf maintenance program.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF401 Develop a sports turf maintenance program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare an seasonal/annual program according to the requirements of the enterprise and the grounds maintenance budget
- outline the scheduled activities in the sports turf maintenance program to green keeping staff and their respective roles and responsibilities
- use existing information and records to determine a comprehensive maintenance program
- monitor and review the program to ensure responsiveness to changing conditions
- implement appropriate courses of action to overcome program shortcomings

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of maintaining a range of sports turf playing surfaces
 - growth habits and cultural requirements of specific turf plant species and cultivars under a range of soil and environmental conditions
 - maintenance requirements and practices for specific turf plant species and cultivars after initial establishment
 - nutrients required by specific turf plant species and cultivars and the effects of nutrient deficiency and toxicity on individual plant species and cultivars, including visual symptoms
 - plant diseases, pests and disorders and weeds of specific turf plant species and cultivars
 - site evaluation techniques including analysis of the condition of soils, plants, and the site for turf maintenance activities

- soil ameliorants commonly required to treat the soil problems experienced by the enterprise
- the characteristics of soil and other growth media types, uses and additives to enhance the available nutrition for specific turf plant species and cultivars
- the main simple and compound fertiliser products available to the enterprise

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHC TRF402 Plan and implement sports turf renovation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan and implement sports turf renovation. It applies to greenkeepers and turf managers who plan, coordinate and supervise the renovation of a sports turf area for minor projects and seasonal renovations in the turf industry.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare the turf	1.1 Identify the turf renovation site and undertake field measurements

Element	Performance criteria
renovation program	and tests 1.2 Select and calculate renovation materials and resource requirements 1.3 Interpret existing design plans and documentation 1.4 Develop a renovation program containing the site assessment report, results of field measurements and tests, risk controls, and material and resource calculations 1.5 Develop and record schedule of works and specifications in the works program
2. Prepare renovation equipment	2.1 Check machinery maintenance logs and prepare machinery for the program 2.2 Carry out pre-operational and safety checks on tools, equipment and machinery
3. Implement the renovation program	3.1 Identify work team and contractors and coordinate work in a sequential, timely and effective manner 3.2 Organise and direct work pattern according to the schedule of works 3.3 Monitor renovation tasks and undertake remedial action 3.4 Maintain a clean and safe work area throughout and on completion of work
4. Complete renovation activities	4.1 Review site and surrounds for completion of works 4.2 Inspect and repair tools, equipment and machinery 4.3 Record expenses and review against budget 4.4 Review the renovation program for costs, scheduling, works procedures and quality of work

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF402A Plan and implement sports turf renovation.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF402 Plan and implement sports turf renovation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- conduct a site hazard identification and risk control assessment
- plan a sports turf renovation program
- document a sports turf renovation program
- develop a schedule of works and specifications for a sports turf renovation program
- implement the schedule of works for sports turf surfaces
- coordinate a work team and contractors

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of sports turf renovation
- enterprise and industry standards for turf surface appearance and quality
- environmental implications of renovation activities, turf and soil treatments, and waste disposal procedures
- field measurements, such as infiltration rate, organic fines, hardness, traction, surface smoothness and turf sward height
- planting, care and renovation scheduling requirements of grass species and cultivars
- specialist turf renovation practices to achieve high performance turf

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF501 Plan the establishment of sports turf playing surfaces

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish sports turf playing surfaces and develop a design for the site, its specifications and work procedures. It applies to the planning processes involved in establishing turf in new constructions and major renovations of existing sports turf surfaces.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Carry out preliminary planning activities for turf establishment	1.1 Confirm client preferences and requirements for the sports turf playing surface 1.2 Assess the site for biophysical factors, services and site modifications 1.3 Research turf plant species and cultivars, legal attributes and local by-laws and restrictions that may affect the plan for turf establishment 1.4 Identify environmental implications of the planned turf establishment works and report to personnel for further research 1.5 Develop a concept plan that reflects client preferences and requirements and takes into account site factors and any identified environmental requirements and present to the client for discussion and approval
2. Determine requirements of turf establishment works	2.1 Select turf establishment procedures consistent with the concept plan according to site factors and available resources and equipment 2.2 Determine resources required for the construction of soil profiles, planting and ongoing maintenance of the playing surface 2.3 Ensure that the design of the soil profile to support the playing surface takes into account the turf use, soil characteristics and includes irrigation and drainage systems 2.4 Identify plants that are appropriate to the site and consistent with the concept plan 2.5 Calculate and cost the quantity and confirm availability with the supplier 2.6 Provide management of new turf that encourages optimal growth 2.7 Determine timelines for preparations, construction of soil profiles, planting and maintenance
3. Prepare and document the turf establishment plan and specification	3.1 Prepare designs of the soil profile and detailed plans of the scope of works, specifications and quotation based on the requirements of the turf establishment work 3.2 Develop and document on-site procedures and schedules for the establishment of the sports turf playing surface and its ongoing maintenance

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF501A Plan the establishment of sports turf playing surfaces.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF501 Plan the establishment of sports turf playing surfaces

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- design sectional and elevation plans of the turf establishment works
- develop a schedule and a plan of the scope of works
- develop and interpret construction documentation
- develop specifications and prepare a bill of quantities
- identify and incorporate sub-contracted works into the turf establishment plan
- order and arrange for purchase and delivery of goods and services
- prepare a maintenance program for turf establishment

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for establishing and maintaining sports turf playing surfaces
 - construction procedures, plant selection and cultural practices for sports turf playing surfaces
 - growth habits and cultural requirements of specific turf plant species and cultivars under a range of soil and environmental conditions
 - irrigation, drainage and the interrelationship of soil air, water and the physical structure of existing and manufactured soils and sports turf mixes
 - legislation and regulations relating to sports turf sites and turf establishment works
 - maintenance requirements and practices for specific turf plant species and cultivars prior to and after initial establishment
 - site evaluation techniques including analysis of the condition of soils, plants and the site for turf establishment activities

- surveying principles and techniques
- the role of project briefs and client consultation processes in planning turf establishment works

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF502 Manage sports turf renovation programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to identify and implement turf renovation programs appropriate to site requirements. It applies to sports turf managers, such as golf course superintendents, bowling greenkeepers, sports ground curators and turf contractors, who are responsible for the coordination of turf renovation programs.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify turf renovation	1.1 Inspect and visually evaluate turf surfaces to determine their

Element	Performance criteria
needs	condition 1.2 Undertake soil tests to determine their need for amelioration 1.3 Perform compaction, visual, physical and chemical tests 1.4 Undertake water quality tests, where appropriate, to determine its effect on turf growth and development
2. Select appropriate renovation techniques	2.1 Consider a range of renovation techniques and practices based on past practices and existing condition of turf 2.2 Refer to renovation records for information about previous practices and timing 2.3 Select turf renovation techniques according to the condition of the turf and the intended outcome of the program 2.4 Determine the timing of the renovation program according to the requirements of the turf species, requirements of the practice and the needs of players and use of the turf facility 2.5 Prepare an on-going turf maintenance program
3. Organise staff and resources for turf renovation project	3.1 Record and program the turf renovation program 3.2 Determine machinery and equipment for the renovation program and check for availability and working condition 3.3 Calculate and order consumable requirements 3.4 Contact and hire contractors and machinery, if necessary, according to the requirements of the program
4. Review renovation outcomes and complete associated record keeping	4.1 Record soil testing and water quality test results 4.2 Record direct costs of consumables and contractors 4.3 Record indirect costs of staff involvement 4.4 Record renovation practices and outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF502A Manage sports turf renovation programs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF502 Manage sports turf renovation programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop renovation documentation
- develop program specifications
- develop a schedule and a plan of the scope of works
- order and arrange purchase and delivery of goods and services
- identify and incorporate sub-contracted works into the turf renovation plan
- prepare an on-going turf maintenance program

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for managing sports turf renovation programs
 - comparative environmental implications of renovation activities, turf and soil treatments and waste disposal procedures
 - enterprise and industry standards for turf surface appearance and quality
 - field measurement techniques such as infiltration rate, organic fines, hardness, traction, surface smoothness and turf sward height
 - impact of climatic conditions on turf recovery
 - planting, care and renovation scheduling requirements of turf grass species and cultivars.
 - requirements of the turf's intended use
 - schedule and intensity
 - soil physical and chemical properties for imported and existing soils
 - specialist turf renovation principles and practices

- turf nutrition and plant growth regulators

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF503 Develop sports turf management programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop sports turf management programs including turf establishment programs, extension/redesign, turf surface upgrades and renovation programs based on the organisation's available resources.

It applies to sports turf managers, such as golf course superintendents, 'grow in' superintendents, project managers and turf contractors, who have a responsibility for developing short-term, annual and on-going sports turf management and maintenance programs.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research turf management principles and practices	1.1 Establish or develop project briefs 1.2 Determine principles underpinning sports turf growth and development as appropriate for site conditions 1.3 Identify and consider environmental impacts of the turf management programs
2. Determine turf management program scope and objectives	2.1 Undertake a site assessment is undertaken that includes the assessment of the turf growing environment, the resources available for on-going turf maintenance, the source of water and its quantity and quality, the type of turf and its condition, intended use and intensity of use 2.2 Estimate the program duration and resource requirements 2.3 Develop a program schedule and budget that reflects the approach taken to the turf management programs 2.4 Review and confirm the turf management program with others
3. Communicate turf management programs to others	3.1 Identify and confirm current turf management practices for the project requirements 3.2 Record and communicate the intended programs in an appropriate format to staff and management or client 3.3 Identify and communicate key parts of the turf management program that involve others 3.4 Develop project schedules and timelines
4. Record and review turf management programs for use by others	4.1 Inspect turf regularly and implement changes to the management plan according to the monitoring process 4.2 Monitor the turf management program and consider and communicate changes to the program 4.3 Record information from team meetings 4.4 Report and file information for future use

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF503A Develop sports turf management programs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF503 Develop sports turf management programs

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance should be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a works schedule and a plan of the scope of works
- develop specifications and bills of quantity for turf management programs
- develop turf management programs
- prepare a turf maintenance program
- record and communicate programs in an appropriate format to staff, management or client
- identify turf maintenance practices based on turf type and usage
- record and review turf management programs for use by others

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for
- impact of climatic conditions on turf varieties
- impact of intended usage on turf
- nutritional requirements for different stages of turf development
- project programming
- renovation requirements and techniques
- requirements of intended use of turf
- soil type and characteristics
- turf establishment techniques and requirements
- turf varieties and characteristics
- water quality and its impacts on soils and turf

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCTRF504 Manage sports turf facility assets

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage infrastructure and other facilities at sports turf grounds. It applies to sports turf managers, such as golf course superintendents, bowling greenkeepers and sports ground curators, who have a responsibility for the management of physical resources (other than the turf playing surfaces) at a sporting venue or club.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Turf (TRF)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Develop an asset database	1.1 Identify and record physical resources and infrastructure for management purposes 1.2 Determine physical resources and infrastructure according to their type and maintenance requirements
2. Identify ongoing maintenance requirements for turf facilities	2.1 Identify and program particular maintenance requirements of various resources 2.2 Purchase and store resources and consumables for the maintenance of different types of facilities 2.3 Consider user manuals and other operational or maintenance documents provided by suppliers where necessary
3. Schedule and monitor program of maintenance works	3.1 Identify and program maintenance activities for enterprise's facilities 3.2 Inform staff responsible for maintenance activities 3.3 Develop record keeping requirements and use to monitor ongoing maintenance and inform others 3.4 Consider and plan for work health and safety issues associated with maintenance of turf facilities 3.5 Ensure that facilities that are unserviceable are dealt with accordingly 3.6 Plan for replacement of facilities that are no longer serviceable
4. Review maintenance works	4.1 Review maintenance schedules in a timely manner and update maintenance programs accordingly 4.2 Notify management of status of turf facilities and make plans for their upgrade or replacement if necessary

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCTRF504A Manage sports turf facility assets.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF504 Manage sports turf facility assets

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance should be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop and use asset databases
- identify maintenance requirements for a range of turf facilities
- record and review programmed works
- schedule and monitor programmed works
- review and update maintenance programs and schedules

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for managing sports turf assets and facilities
 - comparative environmental implications of turf and soil treatments and waste disposal procedures
 - enterprise and industry standards for turf surface appearance and quality
 - maintenance requirements of sports turf physical resources and infrastructure
 - proprietary asset management software
 - scheduling and programming of sports turf maintenance works
 - staff management

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWAT201 Set up, operate and maintain water delivery systems for compost

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to set up, operate and maintain water delivery systems for composting.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Water (WAT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to set up a water delivery system	1.1 Confirm details of location 1.2 Select and use hoses, tools and equipment and components 1.3 Identify appropriate water sources on site

Element	Performance criteria
	1.4 Identify workplace health and safety hazards associated with task 1.5 Select and use appropriate personal protective equipment 1.6 Measure and mark out water delivery lines 1.7 Set up water delivery system
2. Operate a water delivery system	2.1 Commence water delivery 2.2 Set water application rate 2.3 Check all pipes, hoses and all joints and confirm they are secure and leak free 2.4 Check and operate pumps
3. Check the efficiency of a water delivery system	3.1 Check the water application rate and distribution 3.2 Inspect water delivery system for operating faults and dry areas 3.3 Look for variations from required rate or settings, leaks, operating faults and dry areas at any stage in process 3.4 Carry out remedial action 3.5 Record the amount of water delivered to location

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWAT201A Set up, operate and maintain water delivery systems for compost.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWAT201 Set up, operate and maintain water delivery systems for compost

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and adopt safe work practices
- interpret site water management plan and site operating plan or map
- observe faults and variations from required settings
- operate pumps
- record water application data
- set out and operate watering systems

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices compost water delivery systems
- characteristics and operation of joints, hoses, valves and sprinkler components
- components of water delivery system
- methods and techniques of water delivery
- procedures for safe use of equipment, such as powered and hand tools, as used in water delivery system maintenance
- reporting and recording requirements
- standard industry risk-control measures to minimise risk associated with setting up and operating a water delivery system
- workplace health and safety and environmental legislation and enterprise requirements

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWAT301 Monitor and operate water treatment processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor, operate, measure, adjust and report water (including waste water) treatment performance and process control.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Water (WAT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare for work	1.1 Identify work plans and clarify with supervisor 1.2 Select and carry out pre-operational and safety checks on tools, equipment and machinery 1.3 Identify work health and safety hazards, assess risks and

Element	Performance criteria
	implement suitable controls 1.4 Select, use and maintain suitable safety and personal protective equipment
2. Monitor water treatment plant performance	2.1 Conduct routine inspections of treatment equipment 2.2 Collect water samples and conduct standard tests or send samples for analysis where required by the biosecurity and food safety codes 2.3 Collect data on treatment process and record and report in appropriate manner
3. Control chemical use	3.1 Use, handle and store chemicals appropriately 3.2 Prepare chemical dosing 3.3 Maintain information related to chemical supply and usage
4. Operate and control water treatment processes	4.1 Monitor water and waste water treatment processes to maintain parameters of operation 4.2 Identify and report process faults and operational conditions of treatment equipment 4.3 Initiate basic equipment and process adjustments to enhance performance
5. Complete work	5.1 Compile reports from equipment and water treatment processes 5.2 Clean and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWAT301A Monitor and operate water treatment processes.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWAT301 Monitor and operate water treatment processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify adverse environmental impacts of irrigation activities and appropriate remedial action
- identify control system faults
- identify hazards and implement safe work procedures
- prepare and apply chemical dosing
- use water sampling and testing techniques

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for monitoring and operating water treatment processes
 - chemical dosing processes
 - environmental impacts of irrigation using water from any ground or underground source
 - environmental issues associated with water treatment
 - hazardous materials handling
 - water quality monitoring methods and techniques
 - water treatment and water filtration techniques
 - work health and safety procedures relating to the operation of machinery and the use of chemicals

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWAT501 Design water treatment systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design water treatment systems.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Water (WAT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine design requirements	1.1 Determine the quality of water to be treated and level of treatment required 1.2 Develop construction specifications that define the work required

Element	Performance criteria
	<p>to treat water</p> <p>1.3 Identify and protect environmentally sensitive areas</p> <p>1.4 Document design calculations and decisions</p>
2. Define pumping and power systems	<p>2.1 Select pumps to treat water efficiently and effectively as required and to enable supply at the flow and the pressure required to operate the distribution system</p> <p>2.2 Confirm that the pump motor combinations are efficient and the pumps are reliable, functional, serviceable and flexible for the intended application</p> <p>2.3 Calculate energy requirements and determine the layout of electricity lines and check with local authority</p> <p>2.4 Optimise the relationship between capital and operational costs including a comparison of energy sources</p> <p>2.5 Select structures, valves and accessories and integrate into a functional system that can be monitored and maintained</p> <p>2.6 Document performance indicators, design calculations and decisions</p> <p>2.7 Develop construction specifications that define the work required to make a suitable pumping and power system</p> <p>2.8 Check power supply design specification with power authorities</p>
3. Design an water treatment system	<p>3.1 Evaluate and design treatment systems with respect to a range of key variables</p> <p>3.2 Size pipes, valves and fittings according to design system specifications so that capital cost is balanced against operation costs over the anticipated system life</p> <p>3.3 Calculate and document flows, water levels and pressures to be within the acceptable tolerances for optimum performance</p> <p>3.4 Confirm that flows, water levels and pressures are achievable by the pumps operating at optimum efficiency</p> <p>3.5 Include mechanisms for controlling and adjusting pressure</p>
4. Determine capital expense budget	<p>4.1 Document design calculations and decisions and collate plans, specifications and manuals</p> <p>4.2 Organise a check of the design output by a competent designer</p> <p>4.3 Determine and document materials required from plans and specifications</p> <p>4.4 Estimate labour requirements based on documented work schedule, with reasonable allowance for variances in work schedules</p> <p>4.5 Confirm that costing attributed to each component is based upon quoted information from suppliers, or sound analysis of individual elements</p>

Element	Performance criteria
5. Determine operating expense budget	5.1 Confirm that operating expense budget indicates all expenses applicable to the completed system

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWAT501A Design water treatment systems.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWAT501 Design water treatment systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect and analyse information
- develop water treatment system specifications
- identify adverse environmental impacts of water treatment activities and remedial action
- identify design requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of water treatment system design
 - automatic control and monitoring systems
 - budgeting, contractual development and obligations
 - cost/benefit analysis
 - design processes
 - developments in water treatment technology
 - enterprise policies and procedures
 - environmental impacts of water treatment
 - environmental protection agency regulations
 - waste management and environmental issues

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWAT502 Manage water systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to strategically manage integrated systems involving relationships between irrigation, drainage and environmental systems.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Water (WAT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine the feasibility of using or	1.1 Assess water resources and drainage implications to determine suitability for irrigation

Element	Performance criteria
up-grading irrigation system	1.2 Determine water quality and treatment requirements 1.3 Determine water requirements and most suitable application systems for each crop and plant type and area, and for each soil type 1.4 Determine other water requirements, such as climate control 1.5 Assess soil types to determine suitability for irrigation and the range of crop and plant types that could be grown 1.6 Determine drainage requirements in relation to each soil and crop and plant type and type of irrigation system 1.7 Assess performance data, audit reports, environmental and workplace health and safety data for existing systems 1.8 Obtain information from irrigation specialists on all relevant aspects of irrigation design 1.8 Assess and cost available irrigation system types and components and make a decision on the particular system to be used or upgrades to existing system
2. Install or modify an irrigation and drainage system as necessary	2.1 Determine and acquire materials and equipment making up the system 2.2 Install irrigation system using advice, as necessary, from irrigation specialists 2.3 Check that irrigation and drainage systems are supervised to ensure there are no leaks or blockages 2.4 Confirm that the water is being evenly distributed and that the drainage is effective and the system is in good working order
3. Evaluate irrigation system performance	3.1 Determine and value plant growth and yield increases from irrigation 3.2 Calculate the cost of irrigation 3.3 Determine the cost benefit of irrigation and compare with alternative systems and approaches

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWAT502A Manage water systems.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWAT502 Manage water systems

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- analyse performance and audit data
- develop and implement enterprise work health and safety and environmental procedures
- evaluate irrigation system performance
- identify adverse environmental impacts of irrigation activities and appropriate remedial action
- strategically manage irrigated production systems

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of water systems management
 - cost or benefit analysis
 - enterprise policies and procedures
 - environmental impacts of irrigation, using water from any ground or underground source
 - plant requirements
 - water quality

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWHS101 Work safely

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to work safely. It applies to new employees working under supervision, within established and well-known parameters and with limited autonomy.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) and occupational safety and health (OSH) are equivalent and generally either can be used in the workplace. In jurisdictions where the Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State and Territory OHS legislative requirements.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work Health and Safety (WHS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify safety issues at work	1.1 Identify and explain employee and employer duty of care requirements

Element	Performance criteria
	1.2 Identify and explain own responsibilities to comply with safe work practices
2. Observe safe work practices	2.1 Read, follow and observe instructions, notices and workplace safety signs 2.2 Use protective clothing and equipment when completing work tasks 2.3 Check safety of machines, tools and equipment before use 2.4 Operate machines, tools and equipment safely 2.5 Use correct manual handling techniques
3. Participate in workplace safety meetings	3.1 Report work health and safety hazards to supervisor 3.2 Participate in workplace safety meetings
4. Follow incident and emergency response procedures	4.1 Follow workplace procedures for dealing with accidents, fire and emergencies 4.2 Follow enterprise procedures for the provision of first aid

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCOHS101A Work safely

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWHS101 Work safely

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- comply with their responsibilities to work safely
- following workplace procedures for hazard identification
- read and follow safety warning signs, symbols and work instructions
- safely operate machines, tools and equipment
- report workplace safety hazards
- participate in workplace safety meetings
- follow enterprise incident and emergency response procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- employee and employer work health and safety duty of care responsibilities
- enterprise procedures relating to hazards, fires, emergencies, accidents and risk control
- hazards and risks in the industry sector
- relevant machinery and equipment operator manuals
- relevant work health and safety legislation, codes of practice and enterprise workplace policies
- work health and safety signs and symbols relevant to area of work

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWHS201 Participate in work health and safety processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recognise and report hazards in the workplace. It also describes the skills and knowledge required to follow workplace safety procedures and directions.

This unit is applicable to supervised workers who are required to follow work health and safety policies and procedures.

All work must be carried out in accordance with enterprise procedures, recommended safe practices and the relevant legislation.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) and occupational safety and health (OSH) are equivalent and generally either can be used in the workplace. In jurisdictions where the Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State and Territory OHS legislative requirements.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work Health and Safety (WHS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Follow workplace procedures for hazard identification and risk control	1.1 Recognise hazards in the workplace and report them to designated personnel 1.2 Assess risks associated with identified hazards 1.3 Follow workplace procedures and work instructions to control risks 1.4 Follow workplace procedures for dealing with accidents, fire and emergencies within the scope of responsibilities and competencies 1.5 Recognise risks to fellow workers, other people and animals and take action to eliminate or reduce them 1.6 Recognise and carry out employee responsibilities prescribed in work health and safety legislation 1.7 Undertake safety training as directed
2. Observe safe practices during work operations	2.1 Identify, use, maintain and store personal protective equipment (PPE) 2.2 Undertake safety checks on all machinery and equipment before operation 2.3 Identify and report hazards associated with handling hazardous substances and assess risk 2.4 Identify noise hazards, notify relevant personnel and assess associated risks 2.5 Assess risks associated with manual handling jobs prior to commencing activity or carrying out work 2.6 Access information on work health and safety as required
3. Participate in arrangements for maintaining the health and safety of all people in the workplace	3.1 Raise work health and safety issues with designated personnel 3.2 Make contributions to participative arrangements in the workplace within the scope of own responsibilities and competencies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCOHS201A Participate in OHS processes

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWHS201 Participate in work health and safety processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow workplace procedures for hazard identification and risk control
- read safety warning signs
- observe safety during work operations
- follow workplace procedures for dealing with accidents, fire and emergencies within the scope of responsibilities and competencies
- participate in arrangements for maintaining the health and safety of all people in the workplace
- recognise caution or hazard signs and symbols
- identify tasks or information from labels, manuals or written instructions
- record information accurately or verbally reporting information

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant work health and safety legislation, codes of practice and enterprise policies
- employee and employer work health and safety responsibilities
- enterprise procedures relating to hazards, fires, emergencies, accidents and risk control
- relevant machinery and equipment operator manuals
- work health and safety signs and symbols relevant to area of work
- hazards and risks in the industry sector

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWHS301 Contribute to work health and safety processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to carry out enterprise work health and safety policies and procedures.

This unit is applicable to individuals. They typically work within clear reporting lines and procedures.

All work must be carried out to comply with workplace procedures and work health and safety and other relevant legislation and codes.

This unit applies to individuals who actively participate in the workplace safety system and work under broad direction and take responsibility for their own work. They work in a range of known contexts and complete routine activities.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) and occupational safety and health (OSH) are equivalent and generally either can be used in the workplace. In jurisdictions where the Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State and Territory OHS legislative requirements.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work Health and Safety (WHS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Apply work health and safety policies and procedures	1.1 Make information regarding organisation work health and safety policies and procedures readily accessible to all employees 1.2 Identify and carry out employee responsibilities prescribed in work health and safety legislation, codes of practice and national standards 1.3 Identify and carry out employee responsibilities prescribed in enterprise work health and safety policies, including emergency procedures
2. Assist in workplace hazard identification and risk control	2.1 Provide and explain information regarding hazard identification and risk control regularly 2.2 Recognise hazards in the workplace and report them to designated personnel 2.3 Assess risks associated with identified hazards 2.4 Follow workplace procedures, safety signs and work instructions for controlling risks accurately 2.5 Recognise risks to fellow workers, other people and animals and take action to eliminate or reduce them 2.6 Undertake or provide safety training where required
3. Observe safe practices during work operations	3.1 Identify, use, maintain and store Personal Protective Equipment (PPE) required for work 3.2 Read and follow safety warning signs 3.3 Undertake basic safety checks on all machinery and equipment before operation 3.4 Identify hazards associated with handling hazardous substances, assess risks and implement risk controls in accordance with enterprise procedures and work health and safety requirements 3.5 Identify noise hazards, notify relevant personnel, assess associated risks and implement controls in accordance with work health and safety requirements 3.6 Assess manual handling risks prior to commencing activity and use safe lifting practices 3.7 Access information on work health and safety for specific work operations

Element	Performance criteria
4. Participate in arrangements for maintaining the health and safety of all people in the workplace	4.1 Contribute to ongoing monitoring and reporting of all aspects of workplace safety 4.2 Raise work health and safety issues with designated personnel in accordance with enterprise procedures and relevant work health and safety legislation 4.3 Make contributions to participative arrangements in the workplace within the scope of responsibilities and competencies 4.4 Make suggestions to assist the development of effective solutions and control the level of risk associated with enterprise activities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCOHS301A Contribute to work health and safety processes

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWHS301 Contribute to work health and safety processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply work health and safety policies and procedures
- apply workplace procedures for hazard identification and risk control
- read safety warning signs
- participate in arrangements for maintaining the health and safety of all people in the workplace
- work safely during work operations
- record incidents in the work area in accordance with relevant work health and safety legal requirements
- observe and direct others to follow safe working operations
- communicate safety information within and to work team

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant employee and employer responsibilities under work health and safety legislation and relevant national and industry codes of practice
- enterprise procedures relating to hazards, fires, emergencies, accidents, and risk control
- work health and safety signs and symbols relevant to work area
- hazard identification and risk assessment process
- manual handling principles and procedures
- safe systems of work

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWHS401 Maintain work health and safety processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to facilitate meetings and document actions that relate to the consideration of work health and safety issues in the workplace.

This unit is applicable to nominated work health and safety representatives in a workplace.

All work must be carried out to comply with workplace and legislative requirements.

This unit applies to individuals who take responsibility for their own work. They provide and communicate solutions to a range of predictable and unpredictable problems.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) and occupational safety and health (OSH) are equivalent and generally either can be used in the workplace. In jurisdictions where the Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State and Territory OHS legislative requirements.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work Health and Safety (WHS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Provide information about work health and safety	1.1 Explain, with accuracy and clarity, relevant provisions of work health and safety legislation and Codes of Practice to the work group 1.2 Provide information on enterprise work health and safety policies, procedures and programs in a readily accessible manner, and accurately and clearly explain the information to the work group 1.3 Regularly provide, and accurately and clearly explain, information about identified hazards, the outcomes of risk assessment and control procedures
2. Facilitate the participation of workers in work health and safety observance and decision-making	2.1 Implement and monitor enterprise procedures for consultation on work health and safety issues to ensure that all members of the work group have the opportunity to contribute 2.2 Describe, with clarity, procedures used by workers to report work health and safety hazards, assess risks, and take action to control risks, to the work group 2.3 Deal with and resolve issues raised through consultation or refer them to the appropriate personnel 2.4 Communicate, with promptness, the outcomes of consultation over work health and safety issues to the work group
3. Implement procedures for identifying hazards and assessing and controlling risks	3.1 Identify existing and potential hazards and report them to ensure the implementation of adequate risk assessment and effective control measures 3.2 Check that the work group implements procedures to control work health and safety risks and undertakes regular monitoring to ensure ongoing adherence and effectiveness of risk control 3.3 Identify inadequacies in existing risk control measures in accordance with the hierarchy of control and report inadequacies to designated personnel 3.4 Identify and report inadequacies in allocation of resources to management to ensure safe work practice 3.5 Monitor and regularly report existing risk control measures in accordance with workplace procedures
4. Implement workplace procedures for dealing with emergencies and hazardous events	4.1 Implement workplace procedures for dealing with work health and safety emergencies, where necessary, to ensure prompt and effective control action 4.2 Report work health and safety emergencies in accordance with established enterprise procedures 4.3 Implement control measures based on the hierarchy of control to

Element	Performance criteria
	prevent recurrence and minimise the risk of emergencies and hazardous events, or alternatively, refer measures to designated personnel for implementation
5. Implement and monitor enterprise procedures for providing work health and safety training	5.1 Identify work health and safety induction and training needs accurately, specifying the gaps between the required work health and safety competencies and those held by the work group 5.2 Make arrangements for meeting identified work health and safety training needs in both on and off-the-job training programs in consultation with relevant parties
6. Implement and monitor enterprise procedures for maintaining work health and safety records	6.1 Accurately and legibly complete work health and safety records for work area 6.2 Use aggregate information from work health and safety records to identify hazards and monitor risk control procedures within the work area in accordance with own responsibilities

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCOHS401A Maintain occupational health and safety (OHS) processes

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWHS401 Maintain work health and safety processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- facilitate the participation of workers in work health and safety observance and decision-making
- establish procedures to document the identification of hazards and assessment of risk covering the operations of the enterprise
- identify work health and safety hazards and conducting the risk assessment process
- implement enterprise emergency procedures and organise safety drills
- provide staff with work health and safety training in risk assessment, and other areas nominated by risk controls
- respond to emergencies and work health and safety issues in an appropriate and timely manner
- facilitate meetings and document actions to consider work health and safety issues in the workplace
- distribute information concerning work health and safety processes and requirements to staff
- maintain work health and safety records

Knowledge Evidence

The candidate must demonstrate knowledge of:

- hazards in the workplace
- relevant work health and safety legislation and Codes of Practice
- hazard identification and risk control processes
- the hierarchy of work health and safety risk control and its implementation for hazards in land-based industries

- work health and safety training
- communication and engagement strategies with workers
- relevant enterprise management systems and procedures
- accident and incident investigation
- enterprise emergency procedures
- participative work practices

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWHS501 Manage work health and safety processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop work health and safety policies and procedures that demonstrate enterprise commitment to work health and safety.

This unit is applicable to the development of management systems and procedures. It is also applicable to the management of the implementation process, which is usually conducted within policy guidelines and procedures that require the use of discretion and judgement.

All work must be conducted in accordance with relevant legislative requirements, Codes of Practice, workplace procedures and safe work practices.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse information and exercise judgement to complete a range of advanced, skilled activities.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) and occupational safety and health (OSH) are equivalent and generally either can be used in the workplace. In jurisdictions where the Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State and Territory OHS legislative requirements.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work Health and Safety (WHS)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop work health and safety policies and procedures	1.1 Develop a work health and safety business plan and program for the enterprise in consultation with designated personnel and management 1.2 Clearly define and allocate work health and safety responsibilities and duties and include them in job descriptions and duty statements for all relevant positions 1.3 Identify, seek and provide financial and human resources for implementing work health and safety policies and procedures as required 1.4 Provide and explain information on the work health and safety system and procedures, for the area of responsibility, in a form which is readily understood by employees
2. Establish and maintain processes to ensure the participation of all employees in the application of work health and safety	2.1 Establish and maintain consultation processes with employees and their representatives 2.2 Deal with issues raised through participation and consultation and resolve them promptly and effectively 2.3 Provide information about the outcomes of participation and consultation in a manner readily accessible to employees
3. Establish and maintain procedures for identifying hazards	3.1 Identify and confirm existing and potential hazards within the area of responsibility in accordance with trends identified using the work health and safety records system 3.2 Develop and integrate a procedure for the ongoing identification of hazards within systems of work and procedures 3.3 Appropriately monitor activities to ensure that the procedure is effectively adopted throughout areas of managerial responsibility 3.4 Address hazard identification at the planning, design and evaluation stages of any change in the workplace to ensure that new hazards are not created
4. Establish and maintain procedures for assessing risks	4.1 Assess risks associated with identified hazards using information derived from workplace records and industry-wide information 4.2 Develop a procedure for ongoing assessment of risks and integrate it within systems of work and procedures 4.3 Monitor activities to ensure the effective adoption of risk

Element	Performance criteria
	<p>assessment procedures throughout the area of managerial responsibility</p> <p>4.4 Address risk assessment at the planning, design and evaluation stages of any change in the workplace to ensure that the risk from hazards is not increased</p> <p>4.5 Investigate and record accident and dangerous occurrences in accordance with work health and safety procedures</p>
<p>5. Implement interim risk control measures until a better or permanent control measure is developed</p>	<p>5.1 Develop and implement measures to control assessed risks in accordance with the hierarchy of control and trends identified from the work health and safety records system</p> <p>5.2 Implement interim solutions, when measures which control a risk at its source are not immediately practicable, until a permanent control measure is developed</p> <p>5.3 Develop a process of ongoing hazard identification and risk assessment, and a review of effectiveness of control programs, and integrate them into enterprise management arrangements</p> <p>5.4 Monitor activities to ensure effective adoption of the risk control procedure throughout the area of managerial responsibility</p> <p>5.5 Address risk control at the planning, design and evaluation stages of any change in the workplace to ensure the inclusion of adequate risk control measures</p> <p>5.6 Design systems to reduce risk and design administrative arrangements to ensure the implementation of safe work health and safety practices where unable to eliminate hazard</p> <p>5.7 Implement effective work health and safety risk management measures during any modification to buildings and structures or machinery and work activities</p> <p>5.8 Identify inadequacies in existing risk control measures and seek or provide resources enabling the implementation of new measures</p>
<p>6. Plan and manage enterprise procedures for dealing with hazardous events</p>	<p>6.1 Identify, with accuracy, potential emergencies posing risks to the health and safety of workers and the public</p> <p>6.2 Develop plans and procedures, which control the risks associated with hazardous events, in consultation with appropriate emergency services</p> <p>6.3 Provide appropriate information and training to employees to enable the implementation of correct emergency procedures</p> <p>6.4 Train adequate numbers of workers in First Aid to ensure that first aid is applied to preserve life and minimise injury</p>
<p>7. Establish and maintain a work health and safety induction and</p>	<p>7.1 Develop a work health and safety induction program to meet the work health and safety needs of new employees</p> <p>7.2 Develop a work health and safety training program as part of</p>

Element	Performance criteria
training program	supervisors' and employees' general training
8. Establish and maintain a system for work health and safety records	8.1 Establish and monitor a system for keeping work health and safety records to allow identification of patterns of occupational injury and disease in the enterprise 8.2 Regularly update records and use them to evaluate the effectiveness of the enterprise work health and safety program
9. Evaluate the enterprise work health and safety system and related policies, procedures and programs	9.1 Assess the effectiveness of the work health and safety system and related policies, procedures and programs according to enterprise aims with respect to work health and safety 9.2 Develop and implement improvements to the work health and safety system to ensure more effective achievement of enterprise aims 9.3 Assess compliance with work health and safety legislation and Codes of Practice to ensure, as a minimum, the maintenance of legal work health and safety standards

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCOHS501A Manage Occupational Health and Safety (OHS) processes

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWHS501 Manage work health and safety processes

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop work health and safety policies and procedures that demonstrate enterprise commitment to work health and safety
- establish and maintain arrangements to ensure the involvement of all employees in the management of work health and safety
- establish and maintain procedures for identifying hazards
- establish and maintain procedures for assessing risks
- establish and maintain procedures for controlling risks
- establish and maintain enterprise procedures for dealing with hazardous events
- establish and maintain a work health and safety induction and training program
- establish and maintain a system for work health and safety records
- analyse recorded data to determine where the work health and safety program can better meet enterprise and employee needs
- evaluate the enterprise work health and safety system and related policies, procedures and programs

Knowledge Evidence

The candidate must demonstrate knowledge of:

- data and documentation for industry injury statistics
- legislated employer and employee work health and safety responsibilities
- significant hazards and areas of risk in the workplace
- all relevant work health and safety legislation and Codes of Practice consistent with the hierarchy of work health and safety risk control and its implementation for hazards in land-based industries

- risk control measures
- the hierarchy of risk controls
- relevant management systems and procedures
- public safety issues

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL101 Support woolshed activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide support to others during shearing and wool preparation operations.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare materials, tools and equipment for	1.1 Identify the required materials, tools and equipment from provided lists and supervisor's instructions

Element	Performance criteria
woolshed activities	1.2 Check all materials, tools and equipment and inform supervisor if there are insufficient or faulty items 1.3 Use techniques when loading and unloading materials that demonstrate correct manual handling and minimise damage to the load and the vehicle 1.4 Select and use suitable personal protective equipment 1.5 Identify work health and safety hazards and inform supervisor
2. Undertake woolshed activities as directed	2.1 Follow instructions and directions provided by supervisor and seek clarification when necessary 2.2 Undertake work in a safe and environmentally appropriate manner 2.3 Carry out interactions with other workers and owners and classers in a positive and professional manner 2.4 Move animals humanely into pens as directed 2.5 Undertake board duties as directed 2.6 Provide support to shearing as directed 2.7 Provide support to wool sorting, replacing butts and wool pressing as directed 2.8 Inform supervisor if there are problems or difficulties in completing work to required standards or timelines
3. Handle materials and equipment	3.1 Store waste material produced during woolshed activities in a designated area as directed by supervisor 3.2 Handle and transport materials, equipment and machinery as instructed 3.3 Maintain a clean and safe work site while completing woolshed activities
4. Clean up on completion of woolshed activities	4.1 Return materials are returned to store or dispose of appropriately 4.2 Clean, store and maintain tools and equipment 4.3 Inform supervisor of the work outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL101A Support woolshed activities

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL101 Support woolshed activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- use safe work procedures
- prepare materials, tools and equipment for woolshed activities
- provide support to shearing and crutching
- move and pen animals
- assist with wool handling
- undertake woolshed activities as directed
- handle materials and equipment
- clean up on completion of woolshed activities
- communicate with supervisor and team members using industry standard terminology
- apply work health and safety procedures in the context of own work
- apply enterprise animal welfare practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- features of safe work practices
- characteristics of wool types and sheep breeds that relate to sorting wool
- features of shearing and wool preparation tools and equipment
- basic wool handling practices
- relevant sections of federal, state and territory industrial awards that relate to working conditions in the woolshed
- enterprise work health and safety, environmental protection and animal welfare policies and procedures

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL201 Pen sheep

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor and maintain the supply of sheep to shearer catching pens.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Provide continuous supply of sheep to	1.1 Identify work health and safety hazards and report to the

Element	Performance criteria
shearers	supervisor 1.2 Select and use suitable personal protective equipment 1.3 Apply animal welfare principles to the movement and penning of sheep 1.4 Pen sheep in their separate mobs as instructed 1.5 Secure gates to prevent sheep escaping on to the board 1.6 Monitor the speed of shearers and arrange numbers of sheep in catching pens so that shearers all complete shearing at or near mob cutout 1.7 Monitor sheep numbers in catching pens and fill pens as they empty to ensure continuous supply to shearers 1.8 Refill other pens as required
2. Keep mobs separate	2.1 Secure gates to prevent mixing of mobs 2.2 Fill pens with sheep from only one mob at any given time to avoid mixing mobs and wool types 2.3 Inform supervisor of mob cutout 2.4 Move sheep to other catching pens to ensure that mob cutout is simultaneous 2.5 Use safe workplace practices and observe animal welfare requirements with regard to livestock handling
3. Prevent contamination of wool	3.1 Arrange pen density at optimum numbers 3.2 Monitor pens to maintain sheep in standing position to avoid crushing, trampling or soiling of wool 3.3 Minimise and remove potential contaminants within pens 3.4 Follow enterprise biosecurity policies where required

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL201A Pen sheep

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL201 Pen sheep

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards minimise risks and use safe work procedures
- accept and interpret advice from the shed supervisor
- observe differences between mobs of sheep
- monitor shearers workflow and estimate rates for refilling the catching pens and for mob cutout
- move sheep in a shed and pen them up
- use the accepted communications signals in the shed when shearing and sheep movement is in full force
- apply work health and safety in the context of own work
- follow enterprise biosecurity policies where required
- apply animal welfare practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- types of shearing sheds, boards and catching pens
- types of gates and catches in shearing sheds
- safe handling techniques for catching, dragging, and releasing sheep
- animal welfare requirements in relation to sheep
- features of sheep behaviour in the shearing sheds and yards
- hazards associated with handling livestock
- safety features of personal protective equipment and clothing, and when and how it should be used
- relevant industry awards and conditions that relate to working conditions in the wool industry

- relevant sections of State/Territory legislation, regulations and codes of practice with regard to work health and safety, animal welfare, and biosecurity as applied to working in the wool industry

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL202 Perform board duties

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to handle wool from the board, throw fleeces and place wool into bins or press as directed.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Remove contamination	1.1 Identify work health and safety hazards and report to the

Element	Performance criteria
from the fleece	supervisor 1.2 Select and use suitable personal protective equipment 1.3 Remove stained wool, black/coloured wool and contamination on the shearing board as instructed 1.4 Apply safe working practices and using the available safety equipment
2. Remove fleeces and component parts from the shearing board	2.1 Pick wool up after the shearing handpiece has been disengaged and not before 2.2 Identify wet wool and remove for drying 2.3 Pick belly wool up and remove stained wool 2.4 Remove crutch wool and reposition the hind leg if necessary 2.5 Arrange the hind legs of the fleece to allow for the fleece to be picked up efficiently 2.6 Pick fleece up in a controlled bundle and remove from shearing stand as soon as sheep is shorn 2.7 Carry fleece to the wool table and throw to land flat and spread out ready for skirting 2.8 Collect loose wool remaining in the let-out chute 2.9 Place all wool removed from the fleece and from the shearing board in the correct bins or on the correct table
3. Handle non-fleece wool	3.1 Sweep up locks and place in correct bins 3.2 Separate board and table locks where directed 3.3 Remove shanks and jowls if directed and placed in appropriate bin 3.4 Remove pizzle stain from bellies and place in stains line 3.5 Remove brisket wool if directed by the wool classer 3.6 Sweep crutchings clear of the board, remove stain and dags and place in appropriate bins 3.7 Carry lambs wool and prematurely shorn wools to the wool table using boards or paddles, if required 3.8 Place lambs wool on tables for sorting
4. Skirt fleeces under supervision	4.1 Seek information on wool classer requirements for mob 4.2 Remove ribs and sweats and place in appropriate bins 4.3 Remove short crutch wool and wiggings and place with locks 4.4 Remove wool carrying vegetable matter under wool classer supervision 4.5 Seek feedback on accuracy of skirting and fleece to skirtings ratio 4.6 Assist wool classer or wool roller in separating fleece wool, which has been identified as defective or lacking uniformity

Element	Performance criteria
5. Sweep the board and wool room	5.1 Sweep shearing boards, wool room and area beneath the wool table regularly and when necessary during the shearing operation 5.2 Keep the shearing boards and the wool room free of potential contamination 5.3 Remove waste and place appropriately in full consideration of environmental implications
6. Empty bins and other wool containers	6.1 Empty bins and other wool containers as necessary, and replace as directed
7. Perform cut-out duties	7.1 Empty all butts and bins and press wool 7.2 Stack bales 7.3 Sweep wool working area 7.4 Store equipment 7.5 Wash board down and disinfect

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL202A Perform board duties

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL202 Perform board duties

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and follow safety directions
- remove fleeces and sweep boards before the next sheep is dragged for shearing
- pick up and throw fleeces safely onto wool table
- remove non-fleece wools from the board and place in correct bins
- identify and accurately remove stains
- use correct technique for skirting and rolling fleece
- check quantities in bins
- sweep floors and remove contamination
- work rapidly within specified timeframes
- communicate with supervisor, the wool classer and the shearers
- apply work health and safety practices in the context of own work
- apply enterprise environmental sustainability practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- features of the parts of a fleece
- types of shearing shed layouts
- duties and responsibilities of a board person
- types and sources of contamination of the fleece and be able to explain the requirements of Code of Practice for the Preparation of Australian Wool Clips as it relates to the preparation of skirtings and oddments

- methods of handling fleece that minimise risk to own health, including safe lifting and bending techniques.

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL203 Carry out wool pressing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to press wool into bales and related tasks.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for wool	1.1 Identify work health and safety hazards and report to the

Element	Performance criteria
pressing	supervisor 1.2 Select and use suitable personal protective equipment 1.3 Identify the lines of wool to be pressed and confirm with the supervisor 1.4 Check the wool press for safe operation and report any issues to supervisor 1.5 Carry out any required lubrication and maintenance as directed by supervisor 1.6 Prepare the work area in readiness for pressing as instructed 1.7 Check the scales to be used for accuracy and calibrate if necessary, as instructed 1.8 Check the press and its location for safety 1.9 Identify any defective equipment and report to the supervisor
2. Press wool	2.1 Apply safe working practices using the available safety equipment 2.2 Remove contamination from the woolpack and place in the appropriate location 2.3 Place all wool correctly and evenly in the press, as directed 2.4 Press bales safely for weight and length as directed 2.5 Keep work area in a condition that avoids contamination of the wool
3. Close and stack bales	3.1 Use approved bale dividers as instructed and ensure flaps are correctly fastened 3.2 Identify bales for branding before removing them from the press 3.3 Store bales safely, avoiding injury to presser, risk to other workers, and damage to bales and equipment
4. Complete recording requirement	4.1 Brand bales as directed 4.2 Weigh bales and have weight checked by supervisor 4.3 Record bale weights, numbers and descriptions using the appropriate recording system, as directed and arrange a check by the supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL203A Carry out wool pressing

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL203 Carry out wool pressing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- observe and report on work health and safety hazards and risks
- apply standard operating procedures for the press and equipment
- operate different types of wool presses under supervision
- operate the various types of scales and manual handling devices and supervision
- maintain uniform bale weights for each line
- brand bales clearly and accurately
- handle and stack wool bales efficiently and without risk to self, other people or machinery
- record bale information to be interpreted and used by other people
- communicate with wool classer/supervisor
- apply work health and safety practices in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- sources of contamination of the fleece
- the requirements of Code of Practice for the Preparation of Australian Wool Clips as it relates to wool pressing
- methods of handling fleece and bales that minimise risk to own health, including safe lifting and bending techniques
- features of industry standards for weight, length of bales, fastening methods and type of pack
- industry standards for bale branding
- features of the recording system for bale details in use in the organisation

- enterprise work health and safety policies

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL204 Undertake basic skirting of alpaca fleece

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to undertake basic skirting of alpaca fleece during and after shearing.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They identify and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for skirting	1.1 Assemble and check all tools, equipment and materials required

Element	Performance criteria
	for the task 1.2 Identify work health and safety hazards and report to the supervisor 1.3 Select and use suitable personal protective equipment 1.4 Follow site quarantine and other biosecurity protocols 1.5 Take midside fleece samples from each alpaca prior to shearing
2. Collect fleece during shearing	2.1 Use safe work practices at all times 2.2 Pick fleece up as blanket, neck and pieces during shearing 2.3 Keep blanket, neck and pieces and weigh separately, label and record weight 2.4 Discard severely contaminated fleece 2.5 Carry blanket to classing table to enable skirting
3. Skirt saddles under supervision and according to industry guidelines	3.1 Throw blanket lightly onto classing table exposing entire fleece so as to enable loose sand or dirt to fall through without disturbing structure of saddle 3.2 Remove fleece with excessive medullation, or not consistent with general style, character, micron and length of staples and place in pieces bag 3.3 Discard Fleece with major faults and of No Commercial Value (NCV)
4. Process neck pieces and finalise operation	4.1 Separate individual pieces into small bags 4.2 Place small bags containing pieces into a larger bag regardless of colour, micron or length 4.3 Place neck pieces in appropriate classing line 4.4 Seek feedback on work done from supervisor and note any required improvements for future action

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL204A Undertake basic skirting of alpaca fleece

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL204 Undertake basic skirting of alpaca fleece

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and follow safe work practices
- pick up and throw alpaca fleeces
- skirt of alpaca fleece to industry standards
- package fleece and skirtings to industry standards
- communicate faults, malfunctions and workplace hazards
- report on and maintain operational records
- communicate with supervisor and work team
- follow work health and safety policies
- follow enterprise biosecurity protocols
- follow enterprise animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- features of the parts of Huacaya and Suri alpaca fleeces
- types of shearing shed layouts
- duties and responsibilities of a board person
- types and sources of contamination of the alpaca fleece
- enterprise policies with regard to recording and reporting routines
- equipment and bag requirements for skirting and handling fleece to industry standards
- relevant state and territory legislation, regulations and codes of practice with regard to work health and safety, environment, biosecurity and animal welfare.
- features of the Alpaca Fleece classing Code of Practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL301 Appraise wool using industry descriptions

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to appraise wool by applying the industry description system (AWEX-ID) to classed lines of wool.

All work is carried out to industry standards using the AWEX system for the appraisal and description of non-measured characteristics of greasy wool (AWEX-ID) and Code of Practice for the Preparation of Australian Wool Clips.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Source and prepare information on wool to	1.1 Identify and access sources of information on wool appraisal

Element	Performance criteria
be appraised	1.2 Describe the features of AWEX - ID the system for the appraisal and description of non-measured characteristics of greasy wool 1.3 Identify and classify the visual characteristics to be appraised using the relevant descriptors
2. Apply the industry description to lines in a clip	2.1 Check wool clip classing lines for compliance with the Code of Practice 2.2 Appraise wool clip classing lines and record the AWEX-ID 2.3 Evaluate the consistency of appraisal across a wool clip against appraisals for the clip in the sale catalogue
3. Use the industry description to establish a market value for lines made	3.1 Access market information 3.2 Identify premiums and discounts for wool characteristics 3.3 Determine a value for each line made
4. Review clip preparation strategies using an industry description	4.1 Check clip preparation strategies and revise using the AWEX-ID descriptors, and the market value applied to the lines made 4.2 Provide feedback on market information, the effect of management on the wool clip and possible future selection strategies to the woolgrower using the AWEX-ID descriptors applied to the lines

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Wool appraised must include wool from Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Unit Mapping Information

This unit is equivalent to AHCWOL301A Appraise wool using industry descriptions

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL301 Appraise wool using industry descriptions

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- source and prepare information on wool to be appraised for industry description (AWEX-ID)
- apply an industry description (AWEX-ID) to lines in a clip and record appraisal result
- use an industry description (AWEX-ID) to establish a market value for lines made
- review clip preparation strategies using industry standard terminology to communicate feedback to the grower

Knowledge Evidence

The candidate must demonstrate knowledge of:

- features of Code of Practice for the Preparation of Australian Wool Clips
- features of AWEX system for the appraisal and description of non-measured characteristics of greasy wool (AWEX-ID)
- features of the Australian Wool Exchange Wool Selling Rules
- interpretation of the wool sale catalogue
- interpretation of wool testing data
- relevant sources of wool sale lot information
- features of subjective assessment of style, colour, type of vegetable matter fault, degree of stain and faults, and defects.

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Evidence of competency must be demonstrated in Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Assessors must satisfy current standards for RTOs and be currently registered with the Australian Wool Exchange as Australian Wool classers.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL303 Prepare wool based on its characteristics

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare wool based on its characteristics.

All work must be carried out to comply with the requirements of Code of Practice for the Preparation of Australian Wool Clips, workplace procedures, work health and safety and biosecurity requirements and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Separate wools with characteristics outside	1.1 Make assessment of sheep breed and wool type

Element	Performance criteria
the uniformity requirements of the Code of Practice.	1.2 Separate wools into different lines based on fibre diameter, length and strength, colour and character and handle and style 1.3 Check staple formation and tip 1.4 Separate pigmented wool and wool which includes medulated fibres
2. Separate wool showing faults that impact on processing or fabric quality.	2.1 Separate wool for dogginess that will impact on fabric quality 2.2 Separate cotted wool that will require extra processing 2.3 Identify and remove skin pieces 2.4 Check wool for dermatitis and kept separate 2.5 Identify and separate wool based on the level and type of vegetable matter contamination where it requires different processing 2.6 Identify mobs with high pigmented fibre risk and keep their wool completely separate from low risk wool 2.7 Identify wool from sheep with shedding characteristics and keep completely separate from non-shedding white woolled sheep, record risk of exposure to shedding breeds on the classer's report 2.8 Keep fleeces containing pigmented fibre in a white woolled flock separate 2.9 Keep wool containing stain separate
3. Recognise impurities of greasy wool and their effect on processing and yield.	3.1 Examine wool for natural impurities 3.2 Identify applied impurities and assess their effect on processing 3.3 Identify acquired impurities and assess their effect on processing and yield of clean fibre

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Preparation must include wool from Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Unit Mapping Information

This unit is equivalent to AHCWOL303A Prepare wool based on its characteristics

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL303 Prepare wool based on its characteristics

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess key wool characteristics
- identify and separate wool faults
- identify and separate wool with impurities
- separate wool that does not meet Code of Practice requirements for uniform, predictable low risk lines of wool
- identify and separate wool from shedding sheep breeds
- identify and separate wools with a high pigmented fibre risk

Knowledge Evidence

The candidate must demonstrate knowledge of:

- characteristics of the breeds of sheep
- inherent wool characteristics - diameter, length and strength, colour, yield, VM type, curvature, and comfort factor and explain how these characteristics impact on processing and final wool product
- features of impurities in wool and explain their impact on processing and yield of clean fibre after processing
- types and sources of contamination and explain their impact on processing and final wool product
- features of the main wool faults and explain their impacts on processing
- techniques used to measure wool characteristics
- processing methods - woollen and worsted, stages of processing
- wool growth, skin and fibre biology, and discuss the effect of genetics and environment on fibre characteristics

- requirements for handling shedding and pigmented fibres
- relevant aspects of the Code of Practice for the Preparation of Australian Wool Clips and other relevant quality standards that related to preparing wool.

Assessment Conditions

Competency is to be assessed in the work place or simulated environments that accurately reflect performance in a real workplace setting.

Evidence of competency must be demonstrated in Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Assessors must satisfy current standards for RTOs and be currently registered with the Australian Wool Exchange as Australian Wool classers.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL304 Prepare fleece wool for classing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare fleece wool for classing to comply with the requirements of the Code of Practice for the Preparation of Australian Wool Clips.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction of the wool classer and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify characteristics	1.1 Identify characteristics of wool important in processing and assess

Element	Performance criteria
of greasy wool and relate to processor requirements	uniformity within the fleece 1.2 Determine the portion of fleece to be removed to ensure uniformity of the fleece with the other fleeces from the mob
2. Check fleeces for impurities	2.1 Identify natural impurities of the wool and determine the portion of fleece to be removed 2.2 Identify vegetable matter types and determine the portion of fleece to be removed 2.3 Identify mineral impurities and relate to yield potential and determine the portion of fleece to be removed 2.4 Identify and remove any contamination from the fleece 2.5 Check work regularly with the wool classer and adjust procedures if required
3. Check fleeces for presence of wool faults	3.1 Identify hairy breeches and cotted wool and determine the portion of fleece to be removed 3.2 Identify unscourable colour, water stain and dermatitis and handled as directed 3.3 Remove skin pieces and place where directed 3.4 Carry out work safely and at a rate appropriate to the enterprise
4. Skirt and roll fleeces	4.1 Skirt fleeces to remove those portions determined above that adversely affect the uniformity and value of the remaining fleece 4.2 Double skirt fleeces containing clumpy vegetable matter or prepared as directed 4.3 Assess necks and backs for soundness, dust and VM levels, and handled as directed 4.4 Roll fleeces and present to classer 4.5 Place skirtings in the nominated bins 4.6 Remove waste and dispose of appropriately taking into account environmental implications

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Classing must include the preparation of Fine/Superfine Merino, Medium/Strong Merino and Crossbred fleece wools

Unit Mapping Information

This unit is equivalent to AHCWOL304A Prepare fleece wool for classing

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL304 Prepare fleece wool for classing

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assess fleece characteristics and prepare fleeces as directed by wool classer
- assess levels of vegetable matter and other impurities
- accurately skirt fleeces at commercial pace
- roll fleeces in preparation for classing
- communicate with wool classer and other team members using industry standard terminology
- follow enterprise work health and safety procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- characteristics wool and their impacts on processing
- principles and requirements of wool processing methods-woollen and worsted
- features of wool growth
- features of the parts of a fleece
- features of wool faults and impurities
- enterprise the work health and safety procedures
- requirements of Code of Practice for the Preparation of Australian Wool Clips as they relates to the preparation of fleece wool

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Evidence of competency must be demonstrated in Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL305 Prepare skirtings and oddments

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare non-fleece wool to comply with the requirements of the Code of Practice for the Preparation of Australian Wool Clips.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare skirtings	1.1 Identify types of skirtings and oddments

Element	Performance criteria
	1.2 Identify types of pieces and separate 1.3 Prepare Merino skirtings as directed 1.4 Prepare Crossbred skirtings as directed by wool classer
2. Prepare belly wool	2.1 Identify and separate belly wool 2.2 Remove stains and briskets as directed 2.3 Prepare Crossbred and Merino belly wool as directed by wool classer
3. Prepare lambs wool	3.1 Identify types of lambs' wool 3.2 Separate lambs' wool 3.3 Remove stains and trimmings 3.4 Prepare Merino lambs wool as directed 3.5 Prepare Crossbred lambs wool as by wool classer
4. Prepare locks	4.1 Identify types of locks 4.2 Separate board and table locks 4.3 Prepare Crossbred and Merino locks as by wool classer
5. Prepare crutchings	5.1 Identify types of crutchings 5.2 Remove stains and other impurities 5.3 Prepare Merino and Crossbred crutchings as by wool classer
6. Prepare stain	6.1 Identify types of stain 6.2 Prepare Merino and Crossbred stain as by wool classer
7. Prepare other oddments	7.1 Define and identify other oddments 7.2 Describe the preparation of other oddments 7.3 Identify and remove medulated fibre and shedding breeds wool

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Preparation must include the preparation of Fine/Superfine Merino, Medium/Strong Merino and Crossbred skirtings and oddments

Unit Mapping Information

This unit is equivalent to AHCWOL305A Prepare skirtings and oddments

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL305 Prepare skirtings and oddments

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- accurately skirt fleeces at commercial rates
- recognise and remove contamination
- recognise wool faults
- identify impurities in wool
- identify and remove stain
- identify oddments
- prepare skirtings and oddments
- communicate with team members, wool classer and the shearer

Knowledge Evidence

The candidate must demonstrate knowledge of:

- processing methods - woollen and worsted and stages of processing
- features of wool growth, skin and fibre biology
- features of fleece parts, skirtings, locks, crutchings, wool faults, impurities, contamination and stain and their impact on processing
- methods of handling fleece that minimise risk to own health, including safe lifting and bending techniques
- requirements of Code of Practice for the Preparation of Australian Wool Clips as it relates to the preparation of skirtings and oddments

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Evidence of competency must be demonstrated in Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL306 Supervise clip preparation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise board persons, wool handlers and the wool presser in preparing the wool clip.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Explain organisation requirements for clip	1.1 Explain the organisation's requirements for quality and standard of wool clip preparation to the wool handlers

Element	Performance criteria
preparation	1.2 Explain the organisation's procedures for operating safely and for the use of personal protective equipment to the wool handlers 1.3 Explain the impact of contamination in the wool to the wool handlers 1.4 Introduce or indicate the key personnel in the wool shed or room to the wool handlers 1.5 Allocate and explain responsibilities for specific functions or procedures are to wool handlers 1.6 Identify work health and safety hazards, assess risks and implement suitable controls 1.7 Confirm that all personal protective equipment and clothing is selected, used and maintained appropriately by wool handlers
2. Supervise shed hands	2.1 Monitor board persons performance including picking up and throwing fleece, sweeping board and preparing non fleece wools 2.2 Monitor wool handlers performance to ensure they follow the set procedures for each of the clip preparation tasks 2.3 Monitor penner up performance to ensure mobs are handled humanely in line with animal welfare policies and kept separate, and catching pens are monitored and filled as required 2.4 Monitor wool pressers' activities including keeping wool press area clean, pressing, branding, weighing and recording bale details in the wool book
3. Oversee preparation of wool	3.1 Supervise shed staff to maintain a clear board and ensure fleeces are thrown correctly 3.2 Supervise shed staff in the removal and preparation of fleece wool

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCWOL306A Supervise clip preparation

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL306 Supervise clip preparation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work practices
- explain clip preparation requirements to shed staff and monitor their performance
- oversee shed staff to ensure quality clip preparation
- communicate preparation requirements with shed staff
- implement enterprise animal welfare policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- features of the parts of fleece
- procedures for handling skirtings, bellies, lambs wool, premature shorn wool, locks and crutchings, and stained wool and oddments
- responsibilities of board and table staff
- characteristics of different wool types and parts of the fleece
- premiums and discounts for wool characteristics
- pressing and branding requirements
- skirting technique and appropriate skirting ratios for different clip types
- personal protective clothing and equipment requirements for shed staff
- on job training techniques
- principles of staff supervision
- requirements of work health and safety legislation and animal welfare codes of practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Evidence of competency must be demonstrated in Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Assessors must satisfy current standards for RTOs and be currently registered with the Australian Wool Exchange as Australian Wool classers.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL307 Document a wool clip

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare the documentation for a wool clip to meet the requirements of the Code of Practice for the Preparation of Australian Wool Clips, relevant legislation and the enterprise.

It includes instructing others in the use of the system, maintaining the records and advising the owner or manager of issues where appropriate.

The documentation of a wool clip contributes to the wool harvesting operation by optimising efficiency for the grower.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish recording system and documentation	1.1 Select documentation that complies with the requirements of the Code of Practice for the Preparation of Australian Wool Clips, relevant legislation and the enterprise 1.2 Establish guidelines for the use of the recording system including the type, frequency and format of recording 1.3 Inform those who are to use the recording system of their obligations and any specific instructions that are necessary 1.4 Check documentation regularly to confirm that it is accurately completed and updated at the proper times
2. Complete records for wool classing	2.1 Complete documents and records required by the organisation and the market 2.2 Complete wool clip specification prior to consignment, to ensure that the correct lotting advice is provided to the selling broker or buyer 2.3 Make any additional notes or give advice necessary on the documents so that they are clearly understood 2.4 Obtain all signatures and registrations that are required and include on documentation 2.5 Prepare wages statements for contractors according to the agreements reached in employment conditions
3. Provide information and advice to the woolgrower	3.1 Make suggestions for improved safety and fleece quality that are derived from observations, smoothness of workflow, and discussions with operators within the wool shed 3.2 Communicate the wool clip specification to the appropriate authority at shed cutout

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL307A Document a wool clip

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL307 Document a wool clip

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop the recording system for wool clips and bales
- communicate recording requirements clearly to wool handlers and pressers
- prepare and maintain records as required by the Code of Practice for the Preparation of Australian Wool Clips, legislation or enterprise
- observe, identify and react appropriately to work health and safety hazards
- observe the work and identify areas of the work or the facilities that could be improved
- communicate information and advice to the woolgrower on improvements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- features of the Code of Practice for the Preparation of Australian Wool Clips and other relevant quality standards
- features of quality assurance schemes used in the organisation and in the industry, and their documentation requirements
- requirements for the completion of a clip specification
- employment conditions and agreements for a range of workers in a wool harvesting and preparation team
- documentation requirements for wool clip preparation and shearing operations

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Evidence of competency must be demonstrated in Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Assessors must satisfy current standards for RTOs and be currently registered with the Australian Wool Exchange as Australian Wool classers.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL308 Prepare facilities for shearing and crutching

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to ensure the safety and hygiene standards of facilities and equipment prior to shearing and crutching operations, and is undertaken by growers with assistance from wool handlers.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Inspect facilities and	1.1 Inspect facilities and assess for hygiene and safety

Element	Performance criteria
equipment	1.2 Identify equipment faults or malfunctions and report for repair or replacement 1.3 Identify potential and existing hazards, assess risks and implement control measures and report 1.4 Select, use and maintain suitable personal protective equipment
2. Prepare facilities	2.1 Engage shed staff in the removal of contaminating substances according to industry Quality Assurance (QA) and environmental requirements 2.2 Direct and assist shed staff in the cleaning of facilities and equipment and eliminate hazards
3. Prepare equipment and materials	3.1 Direct and assist shed staff in the positioning of tables and equipment 3.2 Place bins and wool pack holders in strategic positions 3.3 Direct and assist shed staff in the positioning of brooms and scrapers 3.4 Hold discussions with the presser in relation to their understanding of the property requirements
4. Organise the supply of sheep to shearers	4.1 Convey the order of shearing and information on mob cut-outs to staff 4.2 Move humanely sheep to be shorn first into catching pens 4.3 Monitor and coordinate the supply of sheep throughout shearing 4.4 Implement enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL308A Prepare facilities for shearing and crutching

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL308 Prepare facilities for shearing and crutching

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work practices
- maintain contamination and hazard-free environment for shearing and wool handling
- recognise and remedy health and safety hazards
- carry out minor maintenance and repairs to equipment and facilities
- disposal of waste in an environmentally responsible manner
- pen sheep humanely in line with enterprise animal welfare policies
- communicate with shed staff and direct operations

Knowledge Evidence

The candidate must demonstrate knowledge of:

- maintenance and hygiene requirements of shearing sheds, boards and catching pens
- sources and types of contamination
- principles of moving and penning animals
- shearing requirements
- features of efficient shed and board layouts
- requirements of work health and safety legislation and animal welfare codes of practice as they relate to the shearing and wool preparation sector

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL310 Press wool for a clip

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to press wool into bales and carry out related tasks such as branding the bales, recording bale weights and numbers, and subsequently storing the wool bales.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes.

This unit applies to wool pressers who work in close cooperation with the wool classer and maintain a rate of pressing that ensures wool flow can be maintained. The work is carried out within established routines, methods and procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare for wool pressing	1.1 Identify the lines of wool and confirm with the wool classer 1.2 Check the wool press for safe operation, and lubricate and maintain it as required 1.3 Inspect the work area to confirm it is free of all contaminants in readiness for pressing 1.4 Confirm that supplies of wool packs, bale fasteners and hooks, stencils and bale-branding inks are located in appropriate place 1.5 Identify the appropriate recording system 1.6 Check the scales to be used for accuracy and calibrate if necessary 1.7 Check the press and its location for safety 1.8 Identify any defective equipment and report to the appropriate person
2. Press wool	2.1 Consult the wool classer to determine mob cut-outs and pressing requirements 2.2 Apply safe work practices at all times and use available safety equipment in line with work health and safety policies 2.3 Remove contamination from the woolpack and place in the appropriate location 2.4 Check woolpacks for conformity 2.5 Seek directions for order of pressing and any special requirements from the wool classer 2.6 Place all wool correctly and evenly in the press to produce even density bales
3. Carry out the role and responsibilities of the wool presser	3.1 Press bales to optimal weights to reduce selling costs and within specified weight and length dimensions in compliance with Code of Practice 3.2 Press lines to avoid mixed bales 3.3 Monitor wool flow and build-up in bins 3.4 Maintain work area in a condition that avoids contamination of wool 3.5 Carry out pressing within time restrictions and workflow of the wool room
4. Close and store bales	4.1 Use approved bale dividers as instructed, and fasten flaps correctly 4.2 Identify bales for branding before removing them from the press 4.3 Store bales safely, avoiding injury to presser, risk to other workers, and damage to bales and equipment 4.4 Store bales to maximise shed space and to avoid weather damage
5. Complete recording	5.1 Brand bales appropriately

Element	Performance criteria
requirements	5.2 Weigh bales appropriately 5.3 Record bale weights, numbers and descriptions clearly using the appropriate recording system

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL310A Press wool for a clip

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL310 Press wool for a clip

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify work health and safety hazards and implement safe work practices
- operate different types of wool presses and carry out basic lubrication and maintenance according to manufacturer instructions
- operate the various types of scales and manual handling devices
- check woolpacks and wool to ensure freedom from contamination
- assess and monitor wool-flow and build-up in bins
- maintain uniform bale weights for each line
- brand bales clearly and accurately to meet the requirements of the Code of Practice for the Preparation of Australian Wool Clips
- handle and store wool bales efficiently and without risk to self, other people or machinery
- record bale information to be interpreted and used by other people
- communicate with wool classer
- work safely in compliance with enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- sources of contamination of wool
- the requirements of Code of Practice for the Preparation of Australian Wool Clips as it relates to wool pressing
- operating requirements for different types of wool presses
- methods of handling wool and bales that minimise risk to own health, including safe lifting and bending techniques
- industry standards for weight, length of bales, fastening methods and type of pack
- industry standards for bale branding

- features of the recording system for bale details in use in the organisation
- enterprise work health and safety policies

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL311 Perform shed duties

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to perform shed duties covering the board and table and to provide mentoring to less experienced staff.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Perform board duties	1.1 Remove stained wool, black wool, and contamination on the shearing board

Element	Performance criteria
	<p>1.2 Pick up belly wool and remove stained wool</p> <p>1.3 Remove crutch wool and reposition the hind leg if necessary</p> <p>1.4 Pick up fleece and throw or park and retrieve later if wool table is not clear</p> <p>1.5 Monitor removal of wool and maintenance of the board and provide extra support when needed</p> <p>1.6 Provide mentoring and demonstration of work skills to inexperienced board staff as required</p> <p>1.7 Apply safe work practices at all times and use available safety equipment</p> <p>1.8 Comply with enterprise animal welfare and biosecurity policies and procedures</p>
2. Prepare wool	<p>2.1 Sweep up locks and keep board and table locks separate where directed</p> <p>2.2 Remove shanks and jowls if directed and place in correct bin</p> <p>2.3 Remove pizzle stain from bellies and placed in stains line</p> <p>2.4 Remove brisket wool if directed by the wool classer</p> <p>2.5 Sweep crutchings clear of the board, remove stain and dags and place in correct bins</p> <p>2.6 Carry lambs wool and prematurely shorn wools to the wool table using boards or paddles if required</p> <p>2.7 Provide mentoring and support in wool handling to inexperienced staff as part of the work team role</p>
3. Skirt fleeces	<p>3.1 Seek information on wool classer requirements for mob</p> <p>3.2 Remove fribs and sweats and place in appropriate bins</p> <p>3.3 Remove short crutch wool and wiggings and place with locks</p> <p>3.4 Remove wool carrying clumpy vegetable matter if directed by the wool classer</p> <p>3.5 Seek feedback on accuracy of skirting and fleece to skirtings ratio</p> <p>3.6 Remove fleece wool which is defective or lacks uniformity if directed by the wool classer</p>
4. Maintain wool flow and minimise contamination risk	<p>4.1 Sweep the immediate shearing area after each sheep is shorn</p> <p>4.2 Sweep shearing boards, wool room, and area beneath the wool table as regularly as necessary during the shearing operation</p> <p>4.3 Keep the shearing boards and the wool room free of potential contamination</p> <p>4.4 Remove waste and place appropriately in full consideration of environmental implications</p> <p>4.5 Minimise the risk of mixing wool between lines through regular sweeping and maintenance of bins, other containers and the wool</p>

Element	Performance criteria
	area 4.6 Complete all tasks and cover contingencies through a professional, team-based approach
5. Carry out tasks to support the shearing operation	5.1 Observe the rate of shearing and estimate the frequency of refilling the catching pens and for mob cutout 5.2 Keep different mobs of sheep separate 5.3 Implement directions from the wool classer and provide feedback on sheep supply and wool flow 5.4 Empty all butts and bins and press wool 5.5 Store bales as directed 5.6 Sweep wool working area clean 5.7 Store equipment at the end of shearing 5.8 Wash board down and disinfect after shearing cutout

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL311A Perform shed duties

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL311 Perform shed duties

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- remove fleeces and sweep boards before the next sheep is dragged for shearing
- pick up and throw fleeces safely
- remove non-fleece wools from the board and place in correct bins
- identify and accurately remove stain
- use correct technique for skirting and rolling fleece
- sweep floors and remove contamination
- work rapidly within specified timeframes
- interpret verbal and visual communication signals within the wool shed given by the supervisor, the wool classer and the shearers
- monitor sheep supply in pens and fill as necessary
- monitor wool flow and the wool working area to ensure risk of mixing between lines is minimised
- provide mentoring to less experienced staff
- deal with contingencies by supporting other staff in tasks as required
- observe and report on adverse environmental impacts
- apply work health and safety requirements in the context of own work
- apply enterprise animal welfare policies in the context of own work

Knowledge Evidence

The candidate must demonstrate knowledge of:

- maintenance and hygiene requirements of shearing sheds, boards and catching pens
- types of contamination and their sources
- properties of the parts of a fleece

- principles of moving and penning animals
- shearing requirements
- shearing shed and board layouts
- environmental codes of practice with regard to shearing
- relevant work health and safety and animal welfare legislation, codes of practice and enterprise requirements that apply to wool harvesting and pressing

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL312 Class goat fibre

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare and class goat fibre.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for fibre classing	1.1 Confirm clip preparation methods and classing criteria 1.2 Identify potential and existing work health and safety hazards,

Element	Performance criteria
	assess risks and implement control measures 1.3 Arrange shed layout, facilities and equipment for efficient fibre flow and pressing 1.4 Place clearly labelled bins and containers in line with the classing strategy, quality management system and enterprise 1.5 Identify and remove contaminants and sources of contaminants and dispose of in an environmentally responsible manner 1.6 Select, use and maintain suitable personal protective equipment 1.7 Establish and maintain sufficient staffing ratio
2. Class goat fibre	2.1 Prepare clip and check for contamination 2.2 Handle and skirt fleeces to the required standards 2.3 Check fibre to ensure freedom from contamination and stain 2.4 Check fibre to ensure adequate and optimum skirting 2.5 Class fibre according to classing criteria, industry standards, and relevant national codes of practice 2.6 Identify fibre of higher and lower market value and processing requirements and make lines to maximise return to the owner
3. Complete classing activities	3.1 Place fibre in bins in readiness for pressing 3.2 Identify and dry wet fibre 3.3 Clean work area and dispose of waste appropriately 3.4 Apply enterprise biosecurity policies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL312A Class goat fibre

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL312 Class goat fibre

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and apply safe work procedures
- arrange layout of bins and equipment for efficient operation
- handle and skirt fleeces to the required standards
- establish and maintain consistent methods of clip preparation
- class fibre to industry standards
- maintain clean working conditions for clip preparation and classing procedures
- accurately assess fibre quality and types
- measure goat fibre
- apply enterprise work health and safety in the context of own work
- apply enterprise animal welfare and biosecurity policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- features of the parts of a fleece
- fleece measurement criteria and appraisalment types
- fleece handling procedures
- clip analysis reports and comparisons
- classing specifications
- features of the code of practice for Preparation of Australian Cashmere, Cashgora Fleece and Mohair
- sources of fleece contamination
- requirements of the code of practices for animal welfare
- enterprise work health and safety legislative requirements and biosecurity policies

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL313 Class alpaca fleece

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to class alpaca fleece.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for classing of alpaca fleece	1.1 Arrange equipment, facilities and layout of shed according to predetermined classing strategy for efficient fleece flow, quality management and pressing

Element	Performance criteria
	1.2 Select, use and maintain personal protective equipment and clothing 1.3 Identify work health and safety hazards, assess risks and implement control measures 1.4 Apply site quarantine/biosecurity protocols and follow hygiene requirements and monitor as required by owner or manager instructions 1.5 Place bins and containers appropriately and ensure they are clearly labelled according to classing strategy and quality management system requirements
2. Carry out classing of alpaca fleece	2.1 Apply safe work practices at all times and use available safety equipment 2.2 Follow enterprise animal welfare policies 2.3 Handle and skirt fleece to standards outlined in classing strategy 2.4 Check fleece to ensure freedom from contamination and stain 2.5 Check fleece to ensure adequate and optimum skirting 2.6 Keep different classes of fleece separate as required 2.7 Appraise fleece for its characteristics 2.8 Identify fleece of higher and lower market value and make lines that maximise return to fleece owner 2.9 Class fleece to Alpaca Fleece Classing Code of Practice or as required by alternative selling methods 2.10 Record data about fleece
3. Dispose of fleece and report on wet fleece	3.1 Place fleece in correct bins ready for pressing and ensure that cross-contamination does not occur 3.2 Identify wet fleece as required by classing strategy and report
4. Follow up classing outcomes	4.1 Seek feedback on classing outcomes and compliance with industry standards from owner or processor and note any required improvements for future action 4.2 Take action to ensure awareness of changes in classing techniques, standards, and processor and market requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL313A Class alpaca fleece

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL313 Class alpaca fleece

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe work practices
- arrange layout of bins and fleece table in a variety of sheds for optimum efficiency of fleece flow and pressing
- label bins and containers correctly
- assess pigmented fibre risk and separating fleece as required
- check fleece to ensure freedom from contamination and stain
- check fleece to ensure optimum and adequate skirting
- identify and appraise alpaca fleece characteristics
- identify fleece of higher and lower market value and ensuring lines are made that maximise return to grower
- class alpaca fleece according to the Alpaca Fleece Classing Code of Practice or as required by alternative selling methods
- seek feedback on classing outcomes and compliance with industry standards from owner or processor
- implement enterprise work health and safety policies
- implement enterprise biosecurity policies and animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- classing requirements for the range of customers
- effect of genetics and environment on fibre characteristics
- fleece growth, skin and fibre biology
- fleece measurement criteria and techniques used to measure fleece characteristics

- inherent alpaca fleece characteristics (such as diameter, length and strength, colour, vegetable matter amount and type and yield)
- interpretation of test results
- preparation of documentation of fleece clips
- Alpaca Fleece Classing Code of Practice
- principles of classing
- raw fleece characteristics and their effect on processing and final product
- features of shed layouts that promote efficient fleece flow and handling.
- requirements of work health and safety legislation, biosecurity and animal welfare codes of practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Evidence of competency must be demonstrated in Huacaya and Suri clips

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL401 Determine wool classing strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop classing strategies to be used for classing a wool clip and communicating the strategy to shed staff and owner and/or manager, then evaluating the strategy for the clip.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Source information for	1.1 Obtain information on previous year's clip preparation and sale

Element	Performance criteria
input to classing strategies	<p>results, including classer's specification, test results, skirting ratios, AWEX-ID, sale prices, and any grower or processor feedback</p> <p>1.2 Obtain information on growing and management history for the mobs over the last twelve months from the grower</p> <p>1.3 Research current market trends and premiums and discounts</p> <p>1.4 Identify current recommendations appropriate to the specific wool clip in the Code of Practice for Preparation of Australian Wool Clips</p> <p>1.5 Obtain current specific exporter and processor requirements and limitations and record relevant details</p> <p>1.6 Identify marketing and selling methods and end uses for the wool from the marketing plan and determine their implications on clip preparation</p> <p>1.7 Identify estimated prices for specific lines from market information</p> <p>1.8 Identify factors that will influence the classing process in the organisation</p>
2. Develop strategies for classing this clip	<p>2.1 Identify fleece type and set up suitable fleece, skirting and oddment lines</p> <p>2.2 Select clip preparation methods and standards to suit the fleece type and market requirements in consultation with the manager and other shed personnel</p> <p>2.3 Adopt operating procedures that eliminate contamination</p> <p>2.4 Select wool classing procedures, methods and criteria in line with fleece type, market requirements and industry standards</p> <p>2.5 Select shed layout and facilities that will permit efficient workflow</p> <p>2.6 Identify work health and safety hazards, assess risks and implement suitable control measures</p> <p>2.7 Select requirements for labelling and placement of bins and containers</p>
3. Communicate classing strategy	<p>3.1 Prepare the shed layout, equipment and facilities required and convey requirements for clip preparation to shed staff</p> <p>3.2 Clip preparation methods and classing procedures are clearly communicated to, and confirmed with, the wool handlers</p>
4. Review the success of the strategies for the clip	<p>4.1 Analyse classed clips and review strategies based on lines made, AWEX-ID, test results, selling costs and prices obtained</p> <p>4.2 Compare alternative clip preparation and classing strategies for profitability of the clip</p> <p>4.3 Incorporate conclusions and actions of review processes into</p>

Element	Performance criteria
	future classing decisions and instructions to shed staff 4.4 Discuss a review of classing and marketing alternatives is with owner or manager

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL401A Determine wool classing strategies

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL401 Determine wool classing strategies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop a classing strategy based on owners enterprise goals, research of past performance of the clip, current management, growing season, market and processor requirements which conforms with the Code of Practice for the Preparation of Australian Wool Clips
- establish and maintain consistent methods of clip preparation
- analyse classed clips and test alternative classing strategies for profitability
- review classing strategies based on broker and buyer feedback
- adapt classing strategies for buyer requirements, marketing systems and owner manager
- value lines of wool using industry descriptions and test results
- incorporate review of classing strategies into instructions for shed staff
- discuss clip test results, prices and alternative classing strategies with owner/shed manager
- observe, identify and react appropriately to environmental implications and work health and safety hazards
- provide feedback to grower/manager on performance of clip preparation strategy adopted.
- communicate classing strategy to shed staff and owner/manager
- implement work health and safety policies and procedures into classing strategy
- implement animal welfare practices into classing strategy

Knowledge Evidence

The candidate must demonstrate knowledge of:

- features of the industry description system (AWEX-ID)
- requirements of the organisation's wool marketing and production plans
- implications of wool testing, broking and export organisations on clip preparation

- clip preparation and analysis processes for the major wool types
- requirements and standards of the national wool processing industry
- methods used for processing wool and their impact on clip preparation and marketing
- marketing alternatives and their implications for classing
- wool brokering services
- features of efficient wool room layout
- sale catalogue and market reports
- specifications for classers
- features of the Code of Practice for the Preparation of Australian Wool Clips and other relevant quality standards
- requirements of the relevant work health and safety legislation, environmental protection, biosecurity and animal welfare legislation and codes of practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Evidence of competency must be demonstrated in Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Assessors must satisfy current standards for RTOs and be currently registered with the Australian Wool Exchange as Australian Wool classers.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL402 Use individual fleece measurements to prepare wool for sale

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to use individual fleece measurements to prepare wool for sale as required by the enterprise's classing strategy and marketing plan.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Gather objectively measured data.	1.1 Arrange shed or wool room layout for efficient sampling operation where required 1.2 Identify potential and existing work health and safety hazards, assess risks and implement control measures 1.3 Collate available information 1.4 Assess tested sample to determine its appropriateness as a representative sample 1.5 Determine the requirements for additional information needed to validate measurements
2. Analyse collected data	2.1 Review and evaluate available data to determine possible lines 2.2 Make comparisons with previous measurements if available
3. Analyse market trends	3.1 Review information produced by industry to determine market trends 3.2 Evaluate the potential for movement in prices against available data 3.3 Determine the extent to which discounts are applied
4. Prepare wool to meet requirements of the market	4.1 Analyse the impact on the market of variable quantities 4.2 Use available information to prepare the wool to best advantage 4.3 Package wool in the most appropriate manner

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL402A Use individual fleece measurements to prepare wool for sale

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL402 Use individual fleece measurements to prepare wool for sale

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- arrange shed or wool room layout for sampling efficient operation where required
- understand and interpret the individual fleece measurements
- class wool to standards in accordance with the Code of Practice for the Preparation of Australian Wool Clips, or as required by the enterprise classing strategy and marketing plan
- communicate specific and detailed requirements for wool preparation and classing to wool handling staff
- identify wool of higher and lower market value and make lines which maximise return to woolgrower
- implement enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- features of wool room layouts which promote efficient wool flow and handling
- characteristics different breeds of sheep
- inherent wool characteristics , including fibre diameter, staple length and strength, colour, yield, VM type, curvature, comfort factor
- fleece measurement criteria - techniques used to measure wool characteristics
- interpretation of test results
- principles of classing , including mob/flock concept, variability for fibre diameter and staple length, soundness, defects
- classing scenarios requiring detail of clip break-ups
- clip analysis reports and comparisons

- clips and other relevant quality standards
- requirements of work health and safety legislation, codes of practice and enterprise procedures

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Evidence of competency must be demonstrated in Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Assessors must satisfy current standards for RTOs and be currently registered with the Australian Wool Exchange as Australian Wool classers.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL403 Plan, implement and review wool harvesting and clip preparation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare for, implement and review wool harvesting, clip preparation and classing.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Plan and implement wool harvesting and preparation operations	1.1 Consult the flock owner or manager about their requirements and inform them of any planning issues taking into account weather and environmental issues 1.2 Determine the order of mobs for wool harvesting and preparation 1.3 Determine staffing needs by negotiation with owner or manager according to clip type, enterprise requirements, legislative requirements, employment agreements and awards 1.4 Allocate staff duties and give staff directions where necessary 1.5 Arrange the shed equipment and materials in line with shearing plan, work health and safety requirements and the quality management system 1.6 Implement the wool harvesting and preparation plan and adjust as required
2. Implement plan and monitor work flows	2.1 Monitor sheep numbers, mob cut outs and shearing speeds to match wool preparation capacity 2.2 Supervise shed staff to maintain a clear board and ensure fleeces are thrown correctly 2.3 Direct shed staff to use appropriate skirting strategies and monitor fleece to skirting ratios 2.4 Direct staff to close off bins and lines for mob cut outs 2.5 Manage wool harvesting and preparation team to comply with quality management system requirements 2.6 Monitor compliance with enterprise and legislative requirements including work health and safety, animal welfare, biosecurity, industrial, and environmental practices 2.7 Manage staff performance and provide direction where necessary
3. Supervise wool pressing	3.1 Instruct presser on pressing strategies to reduce mixed bales while meeting code of practice requirements for uniformity in bales 3.2 Inform presser of order for pressing and procedures to minimize contamination 3.3 Monitor rate of build up in lines by consulting with wool presser 3.4 Monitor bale weights to ensure efficiencies are achieved for the grower without creating overweight bales 3.5 Brand bales appropriately 3.6 Monitor wool book to ensure it is up to date, accurate and legible
4. Provide feedback to grower on classing strategies, clip performance and wool harvesting and preparation operations	4.1 Review staff performance in clip preparation 4.2 Provide feedback on classing strategies, clip preparation in relation to mob characteristics, skirting ratios, bale weights and any workflow issues 4.3 Provide feedback on possible improvements to wool handling

Element	Performance criteria
	facilities 4.4 Report on equipment effectiveness and maintenance requirements 4.5 Explain lines made and bale details in relation to mob characteristics 4.6 Provide feedback on lotting advice 4.7 Complete wool clip documentation and present to owner or manager for signature

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

Unit is equivalent to AHCWOL403A Prepare for, implement and review wool harvesting, clip preparation and classing

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL403 Plan, implement and review wool harvesting and clip preparation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan and implement wool harvesting and preparation operations
- organise and schedule staff and work tasks
- supervise staff and monitor productivity
- implement risk management strategies
- monitor environmental impacts and implement control measures
- implement relevant legislative requirements associated with the shearing industry including employment agreements and awards
- communicate using industry standard terminology written and oral information to team members and management
- review and evaluate operational performance and clip preparation standards
- provide feedback to grower on the shearing operation and the preparation and classing of the clip
- calculate resources and bale weights for mob cut outs
- implement and monitor work health and safety requirements for work team
- implement relevant enterprise biosecurity policies and procedures
- implement animal welfare practices

Knowledge Evidence

The candidate must demonstrate knowledge of:

- supervisory procedures with regard to operations and personnel
- principles staff management including team building and conflict resolution
- wool industry codes of practice and quality systems

- industry requirements with regard to hygiene and safety for wool harvesting and preparation facilities and equipment
- how weather conditions can impact on wool harvesting programs
- features of workplace documentation required for wool harvesting and preparation
- employment agreements, industrial awards, relevant to the wool harvesting sector
- the Code of Practice for the Preparation of Australian Wool Clips and other relevant quality standards
- requirements of work health and safety legislation, biosecurity and animal welfare codes of practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs and be currently registered with the Australian Wool Exchange as Australian Wool classers.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL404 Establish work routines and manage wool harvesting and preparation staff

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to establish work routines and manage wool harvesting and preparation staff.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Define work roles for shed staff	1.1 Define the roles and responsibilities of shed staff 1.2 Identify the skills of shed staff and match with available tasks and duties 1.3 Identify the requirements of job duties and Code of Practice and communicate to shed staff 1.4 Explain work health and safety policy and procedures to staff and monitor implementation 1.5 Explain animal welfare and biosecurity policies to staff and monitor implementation
2. Induct shed staff	2.1 Identify work health and safety hazards, assess risks and implement suitable controls 2.2 Communicate the details of shearing, including flock and mob details to staff 2.3 Brief new staff on relevant awards, enterprise agreements, pay rates and related administration 2.4 Advise new staff of terms and conditions and sign on 2.5 Familiarise new staff with the workplace and colleagues 2.6 Explain the enterprise's environmental policy and procedures and monitor implementation
3. Support on-the-job training	3.1 Encourage individuals to self-evaluate performance and identify areas for improvement 3.2 Determine training needs through appraisal of staff and monitoring of work performance 3.3 Analyse practical skills and then explained and demonstrated as required 3.4 Provide workplace learning opportunities with coaching and mentoring to support learning 3.5 Adjust staff responsibilities to allow for practice and skills development where required
4. Performance manage shed staff	4.1 Establish performance standards for clip preparation and communicate to individuals and the team 4.2 Explain skirting requirements and monitor skirtings ratio 4.3 Describe the requirements for separating specific parts of the fleece to wool handlers using the Code of Practice and processor requirements 4.4 Use motivation strategies for shed staff to maintain a consistent focus on clip preparation standards and timing of operations
5. Maintain effective working relations with the team	5.1 Recognise problems and address through discussion with work group 5.2 Seek assistance from work group members when difficulties arise

Element	Performance criteria
	in achieving allocated tasks 5.3 Use discussion and information sharing to communicate requirements of work activities through a participative approach 5.4 Manage disagreements and conflicts constructively using appropriate conflict management strategies
6. Provide feedback to shed staff	6.1 Provide confirmatory feedback to emphasise good performance and technique and its importance for clip quality 6.2 Provide corrective feedback in a constructive way, including an explanation of the effects of poor performance or incorrect technique and strategies for improvement 6.3 Address under performance both on an individual and team basis 6.4 Use clip data to share feedback on clips prepared with team members

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWOL404A Establish work routines and manage wool harvesting and preparation staff

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL404 Establish work routines and manage wool harvesting and preparation staff

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- supervise and instruct staff to achieve work activities
- delegate and allocate tasks
- identify staff training needs and provide on job training, mentoring and coaching as required
- implement effective time management
- use problem solving techniques to address staffing and resource issues motivate and performance manage work team
- manage conflicts within work team
- communicate with team members
- implement and monitor work health and safety policies and procedures
- implement enterprise biosecurity policies and procedures
- implement and monitor enterprise animal welfare policies and procedures
- implement enterprise environmental policies and procedures

Knowledge Evidence

The candidate must demonstrate knowledge of:

- shearing industry awards, agreements and personnel processes
- principles of team work, negotiation and time management
- principles of workplace instruction/training and coaching techniques
- principles of conflict management
- features of effective communication for feedback and motivation
- principles of staff performance management

- features of the Code of Practice for the Preparation of Australian Wool Clips and other relevant quality standards
- requirements of the relevant work health and safety legislation, environmental protection, biosecurity and animal welfare legislation and codes of practice

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Assessors must satisfy current standards for RTOs and be currently registered with the Australian Wool Exchange as Australian Wool classers.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWOL405 Class fleece wool

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to class fleece wool from merino and crossbred sheep into lines that meet the requirements of the Code of Practice for the Preparation of Australian Wool Clips.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes.

The unit applies to wool classers who class wool as a professional service after consultation with the grower or shed manager.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Wool (WOL)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for wool classing	1.1 Arrange the layout of the shed, equipment and facilities according to the determined classing strategy for efficient wool flow, quality management and pressing 1.2 Identify potential and existing work health and safety hazards, assess risks and implement control measures 1.3 Place clearly labelled bins and containers in line with the classing strategy, quality management system and enterprise requirements 1.4 Establish and maintain sufficient staffing ratio
2. Carry out classing of fleece wool	2.1 Identify hazards, apply safe working practices and use available safety equipment 2.2 Handle and skirt fleece wool to the required standards 2.3 Check wool to ensure freedom from contamination and stain 2.4 Check wool to ensure adequate and optimum skirting 2.5 Assess pigmented fibre risk and keep wool separate as required 2.6 Identify wet wool, stained, cotted and coloured wool and keep separate 2.7 Appraise wool for its characteristics 2.8 Class wool to standards of the enterprise classing strategy, the Code of Practice and as required by alternative selling methods 2.9 Identify wool of higher and lower market value and processing requirements and make lines to maximise return to the wool owner
3. Place wool in bins for pressing	3.1 Place wool in the correct bins ready for pressing and ensure that cross contamination does not occur 3.2 Check wool flow into bins and communicate with wool presser

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Classing must include the classing of Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Unit Mapping Information

This unit is equivalent to AHCWOL405A Class fleece wool

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWOL405 Class fleece wool

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and apply safe work procedures
- arrange layout of bins and wool table for optimum efficient wool flow and pressing in a variety of sheds
- label bins and containers correctly
- monitor clip preparation and skirting
- assess pigmented fibre risk and separate wool as required
- identify and appraise wool characteristics
- class wool to standards in accordance with the Code of Practice for the Preparation of Australian Wool Clips or as required by alternative selling methods
- identify wool of higher and lower market value and lines made which maximise return to grower.
- separate wools of different processing or end user requirements
- identify and keep separate wet wool, stained, cotted and coloured wool and contamination
- communicate with team members in completing tasks associated with classing fleece wool.
- implement enterprise work health and safety policies

Knowledge Evidence

The candidate must demonstrate knowledge of:

- shed layouts which promote safe, efficient wool flow and classing
- characteristics of the breeds of sheep
- types and sources of contamination
- impact of the wool production areas of Australia on clip characteristics

- inherent wool characteristics - diameter, length and strength, colour, yield, VM type, curvature, and comfort factor and explain how these characteristics impact on classing
- techniques used to measure wool characteristics
- processing methods - woollen and worsted, and stages of processing
- effect of raw wool characteristics on wool processing and final product
- features of wool growth, skin and fibre biology, and discuss the effect of genetics and environment on fibre characteristics
- requirements for handling shedding and pigmented fibres
- interpretation of test results, clip feedback and reports
- principles of classing (mob/flock concept, variability for fibre diameter and staple length, soundness, defects)
- documentation requirements for wool clips
- features of the Code of Practice for the Preparation of Australian Wool Clips and other relevant quality standards
- requirements of work health and safety legislation in a wool preparation workplace

Assessment Conditions

Competency is to be assessed in the work place or workplace and simulated environments that accurately reflect performance in a real workplace setting.

Evidence of competency must be demonstrated in Fine/Superfine Merino, Medium/Strong Merino and Crossbred wool clips.

Assessors must satisfy current standards for RTOs and be currently registered with the Australian Wool Exchange as Australian Wool classers.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK101 Maintain the workplace

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain a range of work areas.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy within established and well known parameters.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare and use tools, equipment and machinery	1.1 Identify required materials, tools and equipment according to lists provided and supervisor's instructions 1.2 Check all materials, tools and equipment and inform supervisor of

Element	Performance criteria
	insufficient or faulty items 1.3 Use correct manual handling techniques at all times 1.4 Use suitable personal protective equipment selected as directed by supervisor and ensure correct fit 1.5 Inform supervisor if any risks are identified 1.6 Clarify channels for communicating with workers
2. Maintain a clean and safe workplace	2.1 Locate services using site plans and clarify with the supervisor 2.2 Sweep, wash and treat floors, benches and other flat work surfaces to minimise nuisance level environmental disturbance 2.3 Store tools, equipment and materials not in use neatly and remove waste and used materials and place in disposal containers as instructed 2.4 Identify potential hazards, assess risks and implement control measures 2.5 Apply sustainability practices relative to workplace and activity
3. Maintain structures and workplace surroundings	3.1 Identify maintenance requirements of structures and workplace surroundings and clarify with supervisor 3.2 Maintain structures and workplace surroundings as instructed 3.3 Identify structural damage and deterioration in the workplace and inform supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK101A Maintain the workplace.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK101 Maintain the workplace

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow safe work practices
- participate in teams and contribute to team objectives
- understand instructions
- read labels, site plan measurements and work health and safety symbols
- communicate effectively with team members and supervisor
- tally work hours, calibrating tools and equipment, measuring volumes to apply cleaning agents, measuring quantities of materials and estimating areas
- minimise noise, dust and water run-off to prevent nuisance-level environmental disturbance
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise standards for presentation of buildings, structures and surroundings
- the effect of outdoor climatic conditions (including rain, hail, extreme heat and wind, and very high ultraviolet radiation), which may prevent or impede maintenance activities, or influence the selection of tools, equipment and safety equipment to minimise the hazards presented
- the relationship between specific maintenance activities and the external environment, and reasons for procedures that help to minimise the impact that these activities may have on the environment
- workplace hazards and work health and safety symbols, signs and practices in the context of own work

- sustainability practices in the context of own work.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK201 Observe and report on weather

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to observe and contribute to positive environmental work practices.

The skills and knowledge described in this unit underpin a broad range of activities applicable to a variety of job roles throughout industries at various levels.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Clarify work instructions with supervisor 1.2 Select and use tools and equipment and carry out pre-operational

Element	Performance criteria
	safety checks 1.3 Select and use personal protective equipment 1.4 Identify hazards and inform supervisor 1.5 Identify and action work health and safety policies and procedures and legislative requirements
2. Check weather and climate information	2.1 Check weather and climate information to determine likely conditions 2.2 Recognise changed weather and climate situations 2.3 Anticipate likely impact of changes in weather and climate in respect to work tasks, safety of others, property, natural resources and local environment 2.4 Report anticipated impact of weather and climate to supervisor
3. Carry out preventative action	3.1 Disseminate information and advice to relevant personnel 3.2 Determine the preventative action required according to the known effects on livestock, crops and work tasks 3.3 Implement actions to minimise loss and damage 3.4 Adjust livestock, horticultural or crop management program or schedule of work tasks according to weather and climatic changes
4. Monitor weather and climate	4.1 Access regular updates to determine ongoing suitability of current programs 4.2 Review the viability of livestock, horticultural or crop management practices to ensure suitability within meteorological conditions 4.3 Research forecasting techniques to maintain currency of information 4.4 Document relevant information

Foundation Skills

This unit of competency describes the skills and knowledge required to observe and contribute to positive environmental work practices.

The skills and knowledge described in this unit underpin a broad range of activities applicable to a variety of job roles throughout industries at various levels.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK201A Observe and report on weather

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK201 Observe and report on weather

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- monitor physical signs of weather in the context of available information
- relate forecasts to impact on current operations and activities
- communicate information on weather and situations that may be impacted
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- effects of wind and rain on wind chill
- effects of wind shear and wind chill exposure
- enterprise and industry policies for monitoring weather and climate conditions, and recording and reporting weather and climate conditions
- weather and climate conditions impact upon farming and grazing activities
- effects of wind chill on metabolism of animals
- effects of prolonged dry periods on pastures and animal production, and natural resources
- effects of extreme heat on animals, including during birthing, and effects of heat stress on neonates
- work health and safety requirements and practices, especially as they relate to weather and climate monitoring and preparations for hazardous weather
- sustainability practices in the context of own work.

Assessment Conditions

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK202 Observe environmental work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to observe and contribute to positive environmental work practices.

The skills and knowledge described in this unit underpin a broad range of activities applicable to a variety of job roles throughout industries at various levels.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Follow environmental workplace practices	1.1 Recognise and follow workplace practices and work instructions relating to potential environmental impacts and seek clarification

Element	Performance criteria
	where necessary 1.2 Respond to changes to work practices and procedures positively and promptly
2. Contribute to improved environmental work practices	2.1 Gather information and suggest improvements to support the development of improved workplace approaches to environmental practices 2.2 Discuss environmental issues and their relationship to workplace practices in the workplace with colleagues and designated personnel 2.3 Make contributions to the review of environmental practices and policies within limits of responsibility
3. Recognise and report on a potential environmental threat	3.1 Recognise signs or symptoms of a potential environmental threat 3.2 Report information about or observations of a potential environmental threat to supervisors or appropriate authorities 3.3 Record the location and extent of the potential environmental threat
4. Maintain environmental records	4.1 Prepare and maintain environmental records as required 4.2 Store environmental records securely in a form accessible for reporting purposes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK202A Observe environmental work practices

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK202 Observe environmental work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- communicate with supervisors and workplace colleagues
- recognise basic environmental hazards and threats
- follow workplace directions and instructions related to environment
- keep simple environmental records
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant legislation from all levels of government on environmental issues
- relevant environmental policies and workplace and industry practices and procedures
- good practice approaches relevant to work area particularly in regard to minimising environment hazards and risks, and improving environmental performance
- environmental issues, especially in regard to water catchments, air, noise, ecosystems, habitat, efficient use of resources, sustainability and waste minimisation
- potential environmental threats and problems relevant to a given region and occupation
- general work place practices and their potential impact on the environment
- work health and safety in the context of own work.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK203 Operate in isolated and remote situations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan, prepare for and work safely in isolated and remote situations.

The skills and knowledge described in this unit underpin a broad range of activities applicable to job roles throughout the horse industries at various levels.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan for operating in remote environments	1.1 Collate and record information relating to the operating environment and location

Element	Performance criteria
	1.2 Establish detailed operating and travel plans, including a disaster plan and fallback position requirements in consultation with supervising staff 1.3 Notify the appropriate authorities of the action plans and time schedules 1.4 Identify and source relevant maps 1.5 Assess factors that may impact on public and personal health and safety and the environment, for consideration in preparations
2. Prepare for operating in remote environments	2.1 Prepare personal needs for activities or travel in remote areas 2.2 Prepare transportation and equipment for use in prescribed work location or along prescribed routes 2.3 Obtain and study relevant maps prior to departure 2.4 Record planned activities and itinerary prior to departure 2.5 Identify weather patterns and indicators
3. Prepare for emergency situations	3.1 Confirm that provisioning meets expected operational and possible emergency needs 3.2 Use initial planning and regular monitoring to ensure structured usage of available provisions and resources 3.3 Structure an operating plan to include training in remote area survival techniques prior to operating in remote situations 3.4 Include emergency management procedures as an integral part of operating plans and enterprise policy
4. Operate in remote environment	4.1 Complete activities according to instructions and established time schedules 4.2 Use bushcraft skills to modify the living environment where necessary 4.3 Carry out all activities in remote situations in accordance with prescribed procedures 4.4 Handle emergency situations in accordance with prescribed procedures 4.5 Follow established reporting procedures on completion of planned activities and on return to base

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK203A Operate in isolated and remote situations

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK203 Operate in isolated and remote situations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan and prepare for operating in remote environments
- prepare for emergency situations
- source and interpret maps of the area
- operate in remote environments
- implement workplace procedures to notify location, activities and travel
- prepare provisions to cover essential and emergency needs
- preparing communication equipment
- use bushcraft skills to modify the living environment and reduce the risk of mishap
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- map reading and navigation skills including direction finding (including GPS, use of compass, stars or watch)
- local topography, nearby inhabitants and locations within that area
- survival techniques and human needs relating to survival situations
- clothing requirements for sun or heat protection
- first aid procedures for common injuries
- bush craft including making a fire, cooking and wild food gathering
- water supplies, sources and generation methods
- emergency vehicle and mechanical equipment repair

- the operation of communication equipment (including field communications by two-way, satellite telephony or HF radio), and distress signalling including use of signalling mirrors
- weather patterns and indicators
- work health and safety in the context of work in isolated and remote situations
- environmental impacts of work in isolated and remote situations
- rope skills including useful knots including: reef, clove hitch, truckie's hitch, and bowline; simple lashings and tying down of loads.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK204 Work effectively in the industry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to work effectively on an individual basis and with others as well as within a hierarchy of management.

The skills and knowledge described in this unit underpin a broad range of activities applicable to a variety of job roles throughout industries at various levels.

The unit applies to individuals who work at various levels and should be contextualised to accommodate the responsibility of the individual.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Obtain information about the industry	1.1 Identify and access sources of information about the industry 1.2 Collect information to assist effective and safe work performance

Element	Performance criteria
	<p>within the industry</p> <p>1.3 Obtain and update specific information on sector of work</p> <p>1.4 Apply industry and work health and safety information to day-to-day work activities</p> <p>1.5 Identify employment terms and conditions</p> <p>1.6 Identify career pathways within the industry</p> <p>1.7 Maintain biosecurity protocols and procedures at all times</p>
2. Observe employment requirements	<p>2.1 Use industry developments in the workplace context to improve quality, productivity and conditions</p> <p>2.2 Confirm that work practices comply with Codes of Practice and workplace expectations</p> <p>2.3 Recognise faults and abnormalities in workplace practices and take remedial action as required</p> <p>2.4 Ensure that dress and personal requirements comply with workplace standards</p> <p>2.5 Observe punctuality in work attendance</p> <p>2.6 Meet employer's expectations through completion of workplace routines and specific instructions within enterprise policies and procedures</p>
3. Accept responsibility for quality of own work	<p>3.1 Keep personal work space in a well organised and safe condition, and meets relevant standards and policies</p> <p>3.2 Adhere to the workplace code of conduct</p> <p>3.3 Detect variations in the quality of service or products from required standards and report as required</p>
4. Plan and conduct own work	<p>4.1 Interpret and follow instructions</p> <p>4.2 Identify factors affecting work requirements and take appropriate action</p> <p>4.3 Assess work load and prioritise within allocated timeframes</p> <p>4.4 Communicate the need for assistance to improve performance clearly to the appropriate person</p>
5. Promote workplace cooperation	<p>5.1 Undertake responsibilities and duties in a positive manner to promote co-operation and good relationships</p> <p>5.2 Conduct co-operation with others in a courteous manner and is appropriate to culture, special needs and linguistic background and position in the organisation</p> <p>5.3 Recognise problems and conflict and resolve, where possible, through personal communication or refer to a supervisor, manager or employer for resolution</p>
6. Contribute to a productive work	<p>6.1 Fulfil commitments to undertake work or assist co-workers</p> <p>6.2 Share information relevant to work with co-workers to ensure</p>

Element	Performance criteria
environment	<p>designated work goals are met</p> <p>6.3 Share knowledge and skills co-workers through conversations and meetings</p> <p>6.4 Recognise and seek contributions of individuals of different gender and social and cultural backgrounds</p> <p>6.5 Observe and implement the principles of equal employment opportunity</p> <p>6.6 Ensure work is consistent with workplace standards relating to anti-discrimination and workplace harassment</p>
7. Undertake an activity to workplace requirements	<p>7.1 Interpret work schedules with the schedule and tasks defined</p> <p>7.2 Discuss knowledge and skills required for task with supervisors and co-workers</p> <p>7.3 Check the availability of materials and equipment to ensure they are consistent with work schedules and the requirements of the tasks</p> <p>7.4 Create a daily schedule for completing workplace activities and allocated tasks including priorities, allocated start times, estimation of completion times and materials, equipment and assistance required for completion is decided upon</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK204A Work effectively in the industry.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK204 Work effectively in the industry

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect information on the industry
- observe employment requirements
- accept responsibility for quality of own work
- manage own work
- maintain the safety of others
- contribute to a productive work environment
- interpret work schedules
- meet the industry standard for dress and work practices
- communicate effectively with team members and supervisors
- use industry standard terminology

Knowledge Evidence

The candidate must demonstrate knowledge of:

- industry and workplace awards and conditions
- employer's expectations
- relevant legislation and Codes of Practice applying to the industry
- workplace policies and procedures including those relating to quality systems
- emergency procedures
- organisational structure
- workplace communication channels
- awareness of workplace health and safety in the context of own work
- biosecurity in the context of own work

- animal welfare practices in the context of own work where applicable
- sustainability practices in the context of own work

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK205 Participate in workplace communications

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to participate in workplace communications.

The skills and knowledge described in this unit underpin a broad range of activities applicable to a variety of job roles throughout industries at various levels.

The unit applies to individuals who work at various levels and should be contextualised to accommodate the responsibility of the individual.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Follow routine spoken messages	1.1 Gather required information by listening and interpret information

Element	Performance criteria
	1.2 Follow instructions and procedures in an appropriate sequence for the task and in accordance with the information received 1.3 Seek clarification from the workplace supervisor on all occasions when any instruction or procedure is not understood
2. Perform workplace duties following routine written notices	2.1 Read and interpret written notices and instructions 2.2 Follow routine written instructions and procedures in sequence 2.3 Seek clarification from the workplace supervisor on all occasions when any instruction or procedure is not understood 2.4 Follow enterprise work health and safety policies
3. Obtain and provide information in response to workplace requirements	3.1 Obtain and interpret specific, relevant information 3.2 Write any required information completely, accurately and legibly 3.3 Identify sources of required information and establish appropriate contact 3.4 Ensure personal interaction is courteous and make enquiries clearly and concisely 3.5 Use defined procedures for the location and storage of information
4. Complete relevant work-related documents	4.1 Complete a range of forms relating to conditions of employment accurately and legibly 4.2 Record workplace data manually or electronically using standard workplace forms and documents 4.3 Use basic mathematical processes for routine calculations 4.4 Identify and rectify errors in recording information on forms and documents 4.5 Complete reporting requirements to supervisor as required by workplace procedures
5. Participate in workplace meetings and discussion	5.1 Attend team meetings on time 5.2 Express own opinions clearly and listen to those of others without interruption 5.3 Make contributions to meetings that are consistent with the meeting purpose and established protocols 5.4 Ask and respond to questions about routine workplace procedures and matters concerning conditions of employment 5.5 Interpret and implement meeting outcomes

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK205A Participate in workplace communications.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK205 Participate in workplace communications

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- following simple spoken messages
- performing routine workplace duties following simple written instructions
- gathering and providing information in response to workplace requirements
- completing relevant work-related documents
- estimating, calculating and recording routine workplace measures
- using basic mathematical processes of addition, subtraction, division, multiplication, percentages, decimal points and ratios
- participating in workplace meetings and discussions
- use of industry standard terminology
- awareness of work health and safety in the context of own work
- appropriate sustainability practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- effective communication, including the role of body language
- different modes of communication (e.g. written and non-verbal)
- effective communication in a work team
- communication procedures and systems, and technology relevant to the organisation and the individual's work responsibilities.

Assessment Conditions

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK206 Observe enterprise quality assurance procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to observe enterprise quality assurance procedures.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Apply basic quality assurance practices	1.1 Recognise elements of the enterprise's quality assurance system 1.2 Identify hazards to quality in work area 1.3 Identify critical control points for immediate work area 1.4 Complete basic record-keeping as required by quality process
2. Follow work	2.1 Follow work instructions for quality control for work area

Element	Performance criteria
instructions	2.2 Complete quality documentation
3. Check quality of product	3.1 Check the quality of the product or service as prescribed in work instructions 3.2 Inform supervisor of problems that affect or could potentially affect quality 3.3 Take action to correct the problem under supervision

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK206A Observe enterprise quality assurance procedures

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK206 Observe enterprise quality assurance procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply basic quality assurance practices
- follow work instructions
- check quality of work
- identify and report quality issues
- keep records
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- production processes in the context of own work
- HACCP (Hazard Analysis Critical Control Point) approach to Quality Assurance (QA)
- enterprise QA policies, guidelines and standard operating procedures relating to work being undertaken and at a level that reflects the level of responsibility.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK207 Collect and record production data

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect and record production data obtained from a variety of sources.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify data to be collected	1.1 Determine the specific requirements of the data to be collected by discussion with the supervisor or by reading work instructions 1.2 Select materials or tools required for data collected and calibrate where necessary 1.3 Identify difficulties that may be encountered in collecting the data and seek advice from the supervisor if needed

Element	Performance criteria
	1.4 Communicate advice about the proposed data collection to others as required 1.5 Select and use suitable personal protective equipment 1.6 Determine whether notices relating to site quarantine are in effect and, where required, follow site quarantine procedures
2. Record production data	2.1 Record production data in the correct format and to meet specific requirements
3. Present and store production data	3.1 Present production data in the correct format and to meet specific requirements 3.2 Store production data sheets appropriately 3.3 Download or enter production data into a computer where required, using specified formats and applications

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK207A Collect and record production data

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK207 Collect and record production data

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collecting data as part of the work role or job function
- entering data into specified written or electronic formats
- storing data in the prescribed location and format
- referring to data to complete work activities if necessary
- use of industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- purposes for which the recorded data might be used
- software programs used for recording or storing data
- the enterprise's recording methods
- workplace health and safety in the context of own work.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK208 Provide information on products and services

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide information on products and services in a range of settings.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify information requirements	1.1 Use appropriate interpersonal skills identify customer's information needs 1.2 Handle customer enquiries courteously and promptly 1.3 Update knowledge and understanding of products and services via authoritative sources and appropriate personnel 1.4 Identify personal and professional limitations in addressing

Element	Performance criteria
	customer information needs and seek assistance from appropriate personnel when required 1.5 Follow enterprise work health and safety policies
2. Provide information	2.1 Provide information that addresses customer requirements to customers in a timely and professional manner 2.2 Exhibit product and services that may meet customer requirements to customer as required 2.3 Refer enquiries that fall outside own areas of responsibility and knowledge within enterprise for follow up and completion

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK208A Provide information on products and services.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK208 Provide information on products and services

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- respond to customer requests for information
- use questioning to identify customer requirements
- refer or seek advice from supervisor when required
- engage customer, especially in relation to giving and receiving information
- assess initial customer needs
- access and research product information
- seek assistance as required
- recommend products
- encourage repeat business
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- customer service techniques
- how to effectively engage and communicate with a range of customers
- customer requirements in various rural and horticultural settings
- the enterprise's business values, structure, products and services
- work health and safety in the context of own work.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK209 Participate in environmentally sustainable work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to follow workplace procedures and instructions and to participate in environmentally sustainable work practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work.

No licensing, legislative or certification requirements apply to this qualification at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify current resource use	1.1 Identify workplace environmental and resource efficiency issues 1.2 Identify resources used in own work role 1.3 Document and measure current usage of resources using appropriate techniques

Element	Performance criteria
	1.4 Record and file documentation measuring current usage, using technology (such as software systems) where applicable 1.5 Identify and report workplace environmental hazards to supervisor
2. Comply with environmental regulations	2.1 Follow workplace procedures to ensure compliance 2.2 Report breaches or potential breaches to appropriate personnel
3. Seek opportunities to improve resource efficiency	3.1 Follow organisational plans to improve environmental practices and resource efficiency 3.2 Work as part of a team, where relevant, to identify possible areas for improvements to work practices in own work area 3.2 Make suggestions for improvements to workplace practices in own work area

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK209A Participate in environmentally sustainable work practices

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK209 Participate in environmentally sustainable work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify workplace environmental and resource efficiency issues
- identify and measure resources used in own work role
- record measurements of current usage and filing documentation using appropriate technology
- identify and report workplace environmental hazards to supervisor
- follow workplace procedures to ensure compliance
- report breaches or potential breaches to supervisor
- follow organisational plans to improve environmental practices and resource efficiency
- work as part of a team to identify possible areas for improvements
- use industry standard terminology
- apply work health and safety in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental and resource hazards and risks
- environmental or sustainability legislation, regulations and codes of practice applicable to own work role
- work health and safety issues and requirements applicable to own role
- organisational structure, and reporting channels and procedures
- relevant environmental and resource efficiency systems and procedures
- sustainability in the workplace

- terms and conditions of employment including policies and procedures, such as daily tasks, employee and employer rights, equal opportunity.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK301 Collect samples for a rural production or horticulture monitoring program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect samples as part of a rural production or horticulture monitoring program or while conducting post-mortem examination of livestock or other animals.

Samples collected will usually be analysed by laboratory staff, although collection staff may undertake some testing.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Plan for collection of samples	1.1 Confirm the purpose and scope of sample collection activity from discussion with supervisor or work instructions 1.2 Confirm the sample collection schedule with supervisor 1.3 Confirm the sampling site location and gain approval for site access where required 1.4 Identify the samples to be collected and preserved with supervisor 1.5 Assess the range of likely operating conditions, hazards and difficult or sensitive environments for impact on sampling and testing
2. Prepare equipment and resources	2.1 Source equipment required for sampling and preserving as outlined in sampling procedures 2.2 Check equipment for availability and serviceability 2.3 Select and use appropriate personal protective equipment 2.4 Collect data or record sheets or books for use 2.5 Move equipment, data sheets and personnel to sampling sites and prepare for use 2.6 Apply safe work practices at all times
3. Carry out sampling and preserving procedures	3.1 Collect samples as outlined in sampling plan 3.2 Preserve and record samples 3.3 Prepare and package samples for external analysis in line with laboratory standards and send to laboratory 3.4 Package and transport hazardous materials appropriately 3.5 Make observations including information on the surrounding area and environmental conditions 3.6 Report and deliver collection outcomes including presentation of samples
4. Complete sample collection activities	4.1 Clean, sanitise and store equipment and clothing 4.2 Repair damaged or malfunctioning equipment on site or sent to manufacturer or specialist 4.3 Record sampling results and observations on data sheets and forward to appropriate person 4.4 Advise supervisor of changes in field conditions and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK301A Collect samples for a rural production or horticulture monitoring program

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK301 Collect samples for a rural production or horticulture monitoring program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- plan for collection of samples and moving equipment to the site
- collect and preserve samples for a given site
- record sampling results and observations on data sheets
- carry out sampling procedures
- distinguish atypical circumstances
- prepare samples
- package samples for transport to laboratory
- use and operate relevant tools and equipment
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- hydrological cycle
- field procedures for sampling and preservation
- collecting equipment and methods
- preservation equipment and processes
- basic habitat assessment
- water quality issues
- fauna and flora recognition relevant to sampling activities
- topographical, climatic or environmental influence on material or sampling procedure.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK302 Monitor weather conditions

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor and interpret weather and climate conditions and assess the likely impact.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Interpret weather and climate information	1.1 Monitor weather and climate information and warnings regularly to determine likely conditions 1.2 Anticipate and assess potential variations in weather and climate conditions according to warnings, weather patterns and historical experience 1.3 Identify the possible impacts of weather and climate on crops,

Element	Performance criteria
	livestock and work tasks to determine appropriate preventative action 1.4 Review suitable preventative actions to ensure availability of appropriate resources and responses
2. Carry out preventative action	2.1 Disseminate information and advice to relevant personnel 2.2 Determine preventative action according to the known effects on livestock, crops and work tasks 2.3 Implement actions to minimise loss and damage 2.4 Adjust and revise livestock or crop management program and work schedules according to climatic changes
3. Monitor weather and climate	3.1 Access regular updates to determine the ongoing suitability of current programs 3.2 Review the viability of livestock and crop management practices and scheduling of work tasks to ensure suitability within meteorological conditions 3.3 Undertake research on forecasting techniques to maintain currency of information 3.4 Record relevant information

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

Equivalent to AHCWRK302A Monitor weather conditions

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK302 Monitor weather conditions

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- monitor and interpret weather and climate information
- communicate warnings and concerns
- implement actions to minimise loss and damage
- relate forecasts to impact on current operations and activities
- relate weather and climate conditions and changes to decision-making and prevention of loss and damage
- monitor physical signs in the context of available information.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- weather and climate conditions and its impact upon farming and grazing activities
- effects of wind and rain on wind chill
- enterprise and industry policies for monitoring weather and climate conditions and recording and reporting weather and climate conditions
- effects of shearing and parturition and wind chill exposure if applicable
- effects of prolonged dry periods on pastures and animal production and natural resources if applicable.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK303 Respond to emergencies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to recognise and respond to workplace emergencies.

Workplace emergencies may include such incidents as a small fire that can be controlled using a nearby fire extinguisher; or a chemical spill that can be controlled using personal protective clothing and equipment, and a small spill kit; or other workplace accident where there is no significant injury or damage.

Responding to emergencies may also include application of basic first aid to injured persons. A first aid certificate will be required.

All aspects of the unit must be undertaken in line with legislative requirements, workplace policies and procedures, and accepted safe practices

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for emergency situations	1.1 Identify potential workplace emergency situations and appropriate responses, within the range of current skills and relevant workplace emergency procedures 1.2 Identify relevant emergency resources and their location in the work area 1.3 Carry out regular checks of the workplace to minimise potential hazards and report any issues 1.4 Select, use and maintain personal protective equipment, safety equipment and other aids as required for emergencies and store properly after use 1.5 Identify problems with the serviceability of the emergency resources and report to relevant people
2. Identify and evaluate the emergency	2.1 Recognise and assess the identified or potential emergency situation and evaluate the risks and effectiveness of initial response actions 2.2 Seek advice in evaluating the emergency with appropriate personnel 2.3 Determine emergency needs and priority, including any assistance that may be required 2.4 Evaluate the potential for further development of the emergency and assess any hazards or risks to staff, clients or animals 2.5 Maintain high standards of hygiene and infection control to reduce the risk of infection or cross infection where necessary
3. Implement fire protection and control procedures	3.1 Minimise the risk of fire hazards and any hazardous fuelling procedures in the workplace 3.2 Use fire extinguishers and equipment appropriate to the fire situation and notify authorities 3.3 Follow procedures for evacuation to nominated assembly points 3.4 Carry out safety procedures for the handling and use of industrial gases
4. Safely confine the emergency where possible	4.1 Confine emergency to the immediate area using available resources within current skill limits 4.2 Carry out emergency procedures and operate equipment using safe practices and as trained 4.3 Coordinate use of equipment with other emergency actions 4.4 Implement strategies for group control, including removal of staff, clients and animals from danger and monitor ongoing

Element	Performance criteria
	condition 4.5 Acquire and document information required to assist emergency services and notify as appropriate 4.6 Amend plan of action to accommodate changes in situational variables
5. Manage the emergency situation	5.1 Evacuate casualties using established emergency procedures 5.2 Minimise the risk to self and casualty's health by isolating the hazard if possible 5.3 Assess vital signs and reassure casualty in a calm and caring manner using available resources 5.4 Provide first aid in accordance with established first aid procedures 5.5 Seek first aid assistance and advice from others where necessary 5.6 Implement organisational procedures and policies in the event of a near miss, major injury or death

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK303A Respond to emergencies

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK303 Respond to emergencies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- evaluate the emergency
- avoid and controlling escalation of the emergency
- develop a plan of action decisively
- implement a plan of action
- render first aid care
- deal with contingencies
- operate emergency equipment according to manufacturer's specifications and training
- use appropriate fire protection and control techniques relevant to the organisation and industry
- apply basic first aid to individuals across a range of incident situations applicable to the job role, organisation or sector
- use industry standard terminology
- apply work health and safety in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the use of safe working practices
- the emergency network and contacts
- enterprise plan and evacuation procedures
- work health and safety legislative requirements and Codes of Practice
- legal responsibilities and duty of care
- use of communications equipment

- organisational and legal policies and procedures in the event of an accident/incident
- local call out procedures to access emergency services personnel
- practical first aid skills using prepared and improvised materials
- the emergency evacuation procedure and assembly point/s
- techniques to emergency response network and procedures to access relevant emergency personnel
- legal responsibilities and duty of care for persons and animals as appropriate to industry and emergency situation
- the proper use and technique for handling industrial gases
- hazard identification and risk assessment techniques and tools relevant to the organisation and industry
- use of communications equipment and protocols in the event of an emergency
- procedures to minimise infection and cross infection
- procedures for dealing with major injury or death prepare for, evaluate and act appropriately in emergency situations.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK304 Respond to rescue incidents

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to respond to emergency and rescue incidents.

Work health and safety requirements should be followed at all times and form part of the planning and response activities.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for response	1.1 Check equipment to ensure availability and serviceability

Element	Performance criteria
	1.2 Obtain task and operational instructions 1.3 Confirm location details of incident 1.4 Select and use personal protective equipment 1.5 Notify local environment conditions
2. Respond to incident	2.1 Travel to incident location in a safe and efficient manner 2.2 Maintain communication with base station and other personnel at all times 2.3 Carry out on site search activities as necessary
3. Rescue is effected	3.1 Assess and monitor incident scene for hazards and appropriateness of planned procedures 3.2 Modify planned procedures where necessary in response to local circumstances 3.3 Provide support to other rescue services as appropriate 3.4 Obtain access to casualties safely 3.5 Operate equipment safely and appropriately 3.6 Communicate the progress of the rescue to appropriate people 3.7 Treat and monitor casualties and move to safety
4. Implement post incident responses	4.1 Recover, clean and service equipment 4.2 Complete documentation 4.3 Report incidents

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK304A Respond to rescue incidents.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK304 Respond to rescue incidents

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- investigate the circumstances and logistics for the emergency
- carry out preparation and move to the rescue site
- assess the situation and establish communication with additional or specialist help
- carry out the required rescue or response to emergency
- implement post incident responses
- use industry standard terminology
- apply workplace health and safety in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- local environmental conditions
- search and rescue methods
- operation and characteristics of rescue equipment, tools and vehicles
- environmental, public health and safety issues
- types of hazards and how they should be handled
- enterprise procedures, legislative and work health and safety requirements
- first aid, life preservation.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK305 Coordinate work site activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to coordinate work site activities for small scale projects.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work site activities	1.1 Clarify the requirements of the work with supervisor 1.2 Identify personnel, equipment and material resource requirements according to the scope of the project and supervisors instructions 1.3 Identify and document the order of activities and time allocation and present to the supervisor for verification

Element	Performance criteria
	1.4 Identify the environmental implications of the proposed work site activities and assess the likely outcomes and report to supervisor 1.5 Carry out a work health and safety risk assessment 1.6 Select, use and maintain personal protective equipment according to the type of work site activities to be undertaken
2. Organise resources	2.1 Purchase materials and hire equipment and machinery as authorised by the supervisor 2.2 Obtain external agency permits in the correct order as necessary 2.3 Notify neighbours and affected parties of works to be undertaken as necessary 2.4 Organise delivery of materials, equipment and machinery to site as outlined in the order of activities 2.5 Organise personnel to be on site when they are required
3. Coordinate and report on activities	3.1 Coordinate all resources to suit the scope of the project and order of activities 3.2 Direct personnel in activities for each period of work 3.3 Monitor and document personnel, activities, timelines and resource usage 3.4 Identify contingency situations and report to the supervisor and take corrective actions as required 3.5 Write a simple project report to inform management of work site activities undertaken and completed

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK305A Coordinate work site activities.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK305 Coordinate work site activities

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- read and interpreting documentation associated with work site activities
- prepare and planning worksite activities
- calculate material and resource requirements
- schedule activities and allocating tasks and responsibilities
- coordinate a team to achieve optimum performance
- communicate with personnel at all levels
- monitor activities and recording costs and production levels
- document results clearly and concisely
- perform a work health and safety risk assessment
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental awareness associated with undertaking project works to ensure the impact on the environment is minimal
- work schedule programming
- possible causes of disruption to work activities and their effect on quality and time schedules
- responsibilities and requirements for obtaining external agency permits as necessary
- the range, use and availability of materials, equipment and machinery that may be required for the project
- work health and safety issues, legislative requirements and Codes of Practice.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK306 Comply with industry quality assurance requirements

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to comply with industry quality assurance requirements in the production of food and fibre products.

Quality assurance can include systems for food safety, biosecurity, environmental management and animal welfare.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Follow quality assurance practices	1.1 Determine the elements of the industry quality assurance requirements 1.2 Identify hazards to food safety and quality for work area if applicable 1.3 Determine critical control points for work area 1.4 Complete record keeping 1.5 Conduct a safety hazard analysis and risk assessment and implement the Critical Control Point (HACCP) approach to quality assurance
2. Implement standard operating procedures	2.1 Implement standard operating procedures 2.2 Report non-conforming or defective product to supervisor 2.3 Take corrective action as required
3. Report problems that affect quality	3.1 Identify potential or existing quality problems 3.2 Identify instances of variation in quality from specifications or work instructions 3.3 Report variations and potential problems to supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK306A Comply with industry quality assurance requirements.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK306 Comply with industry quality assurance requirements

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify and reporting issues that impact on product quality
- follow quality assurance practices
- implement standard operating procedures
- contribute to reviews of work output against quality standards
- complete records
- determine critical control points for work area
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- industry quality assurance requirements
- work processes in own field of work
- Hazard Analysis and Critical Control Point (HACCP) approach to quality assurance
- workplace procedures, policies, guidelines and standard operating procedures for own area of work.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK307 Develop and apply fertiliser and soil ameliorant product knowledge

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop and apply fertiliser and soil ameliorant product knowledge.

The unit applies to contractors and employees working in a number of roles within the fertiliser and soil ameliorant industry, including those involved in fertiliser and soil ameliorant spreading or application, warehousing, wholesale and retail sales and transport and the storage of fertilisers and soil ameliorants.

Work is carried out to comply with industry codes of practice, quality assurance requirements, environmental best practices and relevant legislative requirements.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
<p>1. Identify fertiliser and soil ameliorant products and associated work health and safety, food safety and environmental issues</p>	<p>1.1 Source information about new products and developments continually</p> <p>1.2 Provide information about fertiliser and soil ameliorant product to customers</p> <p>1.3 Explain work health and safety, food safety and environmental issues relating to particular products to customers, with particular reference to their safe storage, handling and application</p> <p>1.4 Identify bulk fertiliser and soil ameliorant products using a combination of visual and physical examination of product characteristics</p> <p>1.5 Use correct terminology when distinguishing between different products and services</p> <p>1.6 Maintain biosecurity protocols and quarantine procedures at all times</p>
<p>2. Work with fertiliser and soil ameliorant products</p>	<p>2.1 Identify and apply storage and handling requirements of products consistently</p> <p>2.2 Identify work health and safety hazards associated with particular products and take appropriate action to minimise risks to self and others</p> <p>2.3 Identify environmental risks associated with particular products and take appropriate action to minimise any likely risks to self and others</p> <p>2.4 Select, use and maintain suitable personal protective equipment</p> <p>2.5 Use inventory and labelling systems to locate products within the workplace or store</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK307A Develop and apply fertiliser and soil ameliorant product knowledge.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK307 Develop and apply fertiliser and soil ameliorant product knowledge

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify fertiliser and soil ameliorant products using information about their characteristics
- provide information to customers about fertiliser and soil ameliorant products
- refer customers to other appropriate sources of information about products
- work safely with products
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- characteristics and key label components (including product analysis, impurities and warnings) of the range of fertiliser and soil ameliorants sold or handled in the workplace
- key environmental, work health and safety and food safety risks associated with the use, spreading, storage, handling and transport of fertilisers and soil ameliorants.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK308 Handle bulk materials in storage area

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to receive, move and sample bulk materials in a storage area.

Bulk materials are handled to industry standards and the bulk material storage program in relation to segregation and storage conditions ensuring minimum loss or damage and optimum returns.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work in bulk	1.1 Interpret work to be undertaken from the work program where

Element	Performance criteria
materials storage area	<p>necessary, and confirmed with supervisor</p> <p>1.2 Identify work health and safety hazards, assess risks and implement suitable control measures</p> <p>1.3 Select, use and maintain suitable personal protective clothing</p> <p>1.4 Select, check and maintain tools and equipment suitable for the work to be undertaken</p> <p>1.5 Identify environmental implications of undertaking work in the bulk materials storage area, assess likely outcomes and responsible action taken if necessary</p> <p>1.6 Maintain biosecurity protocols at all times</p> <p>1.7 Identify legislative, regulatory and industry requirements</p> <p>1.8 Design and implement contingency strategies</p>
2. Sample bulk materials for testing	<p>2.1 Take representative samples of bulk materials for testing in line with the requirements of the bulk materials storage program</p> <p>2.2 Undertake sampling safely, following the prescribed guidelines for the activity</p> <p>2.3 Prepare representative bulk materials samples for dispatch by clearly labelling and packaging accordingly</p> <p>2.4 Dispatch samples to the analysing body</p>
3. Move bulk materials into and out of storage	<p>3.1 Identify bulk materials for handling and storage from written or verbal instructions</p> <p>3.2 Segregate bulk materials according to type, variety and quality characteristics</p> <p>3.3 Take measures to minimise insect and weed infestation and contamination during the movement of the bulk materials</p> <p>3.4 Check bulk materials regularly for insect infestation and contamination during movement</p> <p>3.5 Clean any storage and handling equipment that is used thoroughly after emptying, and dismantle if necessary</p> <p>3.6 Select silo types and handling equipment for each bulk material type in relation to their storage characteristics and flow properties</p> <p>3.7 Implement suitable measures to minimise the effect of desiccant dusts on the flow properties of bulk materials</p> <p>3.8 Update and store records appropriately</p>
4. Repair and maintain storage facility	<p>4.1 Identify the need for repairs to the facility through observation or instruction</p> <p>4.2 Conduct maintenance and repairs as required</p> <p>4.3 Complete maintenance records and other appropriate information</p> <p>4.4 Clean and maintain workshop and work areas</p> <p>4.5 Report maintenance and repairs, damage, malfunctions or</p>

Element	Performance criteria
	irregular performance in machinery, tools and equipment 4.6 Clean, maintain and store tools and equipment

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK308A Handle bulk materials in storage area.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK308 Handle bulk materials in storage area

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- check equipment and storage facilities and identify current or impending faults
- record bulk materials stocks and movements
- conduct silo readings
- identify bulk materials pests and damage
- use communication systems
- sample and conduct a simple analysis of bulk materials
- handle and manoeuvring equipment
- test bulk materials for moisture, contamination and quality
- complete pre-operational checks on basic tools and equipment
- perform routine safety, service and maintenance procedures on tools, equipment and machinery
- operate hand and independently powered tools and clean equipment to industry standards
- clean, securing and storing machinery and equipment
- perform basic trouble shooting
- recognise and rectifying minor operational faults
- handle hazardous substances (fuels) safely
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the client's sampling and classification requirements
- bulk materials types and characteristics

- common bulk materials pests and problems
- legislative requirements, manufacturer's instructions and workplace procedures
- silo operations and configuration, machinery and operating practices
- organisation requirements for protective equipment and safe practices in relation to work health and safety
- organisation and industry guidelines for segregation of bulk materials quality assurance principles
- pre-operational and safety checks, servicing and maintenance procedures for tools and equipment
- potential hazards associated with the operation of basic tools and equipment
- general machine maintenance procedures
- machinery operating principles and operating methods
- machinery storage and protection methods
- environmental impacts associated with the operation of machinery and equipment
- personal protective clothing and equipment and when and how it should be used
- cleaning and storage of machinery, equipment and materials
- enterprise recording and reporting procedures.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK309 Apply environmentally sustainable work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to apply environmentally sustainable work practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

Work routines meet organisational and compliance requirements for ethical handling and welfare of animals, environmental sustainability, work health and safety, and biosecurity appropriate to the work role.

No licencing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify current practices in relation to resource usage and sustainability	1.1 Identify current environmental regulations and associated procedures applying to the workplace 1.2 Identify environmental sustainability policy and procedures applicable to the workplace 1.3 Identify resource usage in the workplace using purchasing and other relevant data 1.4 Access information on impact of resource usage on environmental sustainability 1.5 Conduct a safety hazard analysis and risk assessment
2. Contribute to the review of workplace environmental sustainability practices	2.1 Collect information on environmental sustainability and resource efficiency systems relevant to the workplace 2.2 Review current practices and identify potential areas for improvement 2.3 Seek suggestions and ideas from stakeholders to improve the management of the environment and resource efficiency 2.4 Contribute to development of tools or resources to help make improvements in the workplace, using collected information 2.5 Communicate proposed improvements to management
3. Apply improvement strategies	3.1 Use appropriate techniques and tools to assist in achieving efficiencies and environmental targets 3.2 Apply life cycle management principles 3.3 Apply strategies to minimise waste and employ recycling, re-use or re-purposing where appropriate 3.4 Apply strategies to minimise environmental risks and impacts
4. Record and report on work practices	4.1 Use monitoring and evaluation tools and technology where available 4.2 Record incidents where sustainability policy and procedures have been breached 4.3 Record and report on progress against resource efficiency and environmental targets 4.4 Provide feedback to management on environmental sustainability review and improvement process 4.5 Promote organisational improvement strategies

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCWRK313A Implement and monitor environmentally sustainable work practices. No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK309 Apply environmentally sustainable work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify current procedures and practices related to environmental regulations
- identify current procedures and practices related to minimising impact of resource usage on environment
- make contributions to the review of environmental sustainability procedures and practices through research and development of tools or techniques
- use appropriate techniques and tools to assist in achieving resource efficiencies and environment targets
- use communication skills to:
 - convey proposed improvements
 - provide feedback on improvement processes
 - promote organisational improvement strategies
- apply life cycle management principles in strategies to improve resource usage, reduce waste, employ recycling, re-use, or re-purposing, and to minimise environmental risks and impacts
- use tools and technology to monitor effectiveness of improvement strategies, and incidents that breach sustainability policy and procedures
- record and report on progress against resource efficiency and environmental targets.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- basic environmental sustainability principles
- environmental legislation, regulations, standards, codes of practices as may be relevant to industry sector and workplace

- relevant internal and external sources of information that can be used to identify sustainability improvements
- common environmental and energy efficiency issues within the industry
- environmental hazards and risks associated with the relevant industry sector
- organisation's sustainability work policies and procedures
- principles of resources efficiency and life cycle management
- practices for disposal or recycling of waste associated with relevant industry sector
- organisation's recording and reporting systems.

Assessment Conditions

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK310 Provide on-job training support

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to provide on-job training support.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify needs for on-the-job training support	1.1 Determine training needs in consultation with supervisor and employee or trainee 1.2 Obtain agreement on the extent and scope of training support to be provided with the supervisor 1.3 Define outcomes from training prior to commencement

Element	Performance criteria
	1.4 Clarify methods of providing on-job training support and obtain agree from supervisor
2. Support on-the-job training	2.1 Confirm training outcomes with the learner 2.2 Deliver training as directed and in accordance with workplace procedures and relevant legislation 2.3 Practice opportunities are provided to re-enforce the training
3. Provide follow-up and support to learner	3.1 Opportunities to apply competencies on-the-job are provided 3.2 Constructive feedback and coaching are provided to assist learning 3.3 Feedback of employee's progress is given to the supervisor in the workplace

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK310A Provide on-job training support.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK310 Provide on-job training support

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and providing a safe learning environment
- determine training needs and required outcomes
- deliver training in work skills
- identify needs for on-the-job training support
- provide follow-up and support to learner
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- adult learning principles
- setting up on-job training support
- approaches to on-job training support
- resources required for on-job training support
- reviewing and reporting on on-job training support
- work health and safety issues related to on-job training support.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK311 Conduct site inspections

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to conduct a site inspection, including verification of the location, ownership, orientation and boundaries of a site.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Collect information	1.1 Obtain site location and relevant details 1.2 Source site maps and plans where available and review 1.3 Identify the scope of inspection in line with client-stakeholder needs and local regulations

Element	Performance criteria
	1.4 Determine climate and weather conditions from historical data 1.5 Seek formal approval is sought to visit site where required 1.6 Identify and record covenants 1.7 Check remote sensing systems for status
2. Prepare for a site visit	2.1 Identify and prepare requirements for inspection 2.2 Plan methods for recording inspection and confirm forms are available for use 2.3 Evaluate the scope of proposed work and prepare field notes to checklist specific concerns 2.4 Evaluate environmental conditions in preparation for likely site conditions 2.5 Consider traffic management requirements where required
3. Conduct site inspection	3.1 Carry out site orientation and verify ownership and site boundaries 3.2 Identify site hazards for a site inspection, assess risks and implement appropriate control measures 3.3 Identify, estimate and record site dimensions and gradients 3.4 Identify soil types from soil identification reference chart guidelines 3.5 Test soil samples in the field and record detailed notes for analysis of potential problems 3.6 Inspect relevant vegetation to determine the identity, health, condition and location 3.7 Investigate observable signs of fauna 3.8 Identify and record existing on-site services and adjacent site features
4. Document information	4.1 Prepare a base plan of the site 4.2 Document site inspection information in an inspection or site inventory report or on the base plan if required 4.3 Complete documents and forward to client or supervisor

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK311A Conduct site inspections.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK311 Conduct site inspections

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify a wide range of vegetation common to the region
- recognise plant health problems and defects
- perform hazard identification and risk control procedures
- conduct soil field tests
- estimate dimensions and gradients
- report findings to the client or supervisor
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- plan and map interpretation
- soil pH, texture, structure and type
- plant identification and plant physiology
- measuring and estimating methods
- current land use and environmental threats to site hazards associated with undertaking site inspections
- protocols of accessing and visiting a site
- relevant legislative and regulatory requirements including environmental protection legislation
- local government regulations relating to the proximity of trees to buildings, services and roads
- local tree protection and preservation regulations

- relevant Codes of Practice.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK401 Implement and monitor quality assurance procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement and monitor quality assurance procedures.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish quality specifications for product	1.1 Source market specifications 1.2 Identify legislated requirements

Element	Performance criteria
2. Identify hazards and critical control points in the production of quality product	2.1 Identify critical control points impacting on quality 2.2 Determine the degree of risk for each hazard
3. Assist in planning of quality assurance procedures	3.1 Develop procedures for each identified control point to ensure optimum quality 3.2 Minimise hazards and risks by application of appropriate controls 3.3 Develop processes to monitor the effectiveness of quality assurance procedures
4. Implement quality assurance procedure	4.1 Allocate responsibilities for carrying out procedures to staff and contractors 4.2 Prepare instructions 4.3 Provide staff and contractors with induction training on the quality assurance policy 4.4 Provide staff and contractors with in-service training relevant to their allocated procedures

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK401A Implement and monitor quality assurance procedures.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK401 Implement and monitor quality assurance procedures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and critical control points in the production of quality product
- assist in planning of quality assurance procedures
- provide induction and in-service staff training
- implement quality assurance procedures
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- market requirements for product
- definition of quality
- quality specifications for product
- enterprise and industry quality assurance systems
- Hazard Analysis and Critical Control Points (HACCP) techniques
- strategies for control of hazards to quality
- work place training strategies
- delegation and empowerment
- contingency management.

Assessment Conditions

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK402 Provide information on issues and policies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to research, extract and provide information on issues and policies.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Process a request for information on issues and policies	1.1 Document the request using the appropriate recording system 1.2 Record relevant notes from dialogue with the client and from correspondence 1.3 Seek and obtain approval to access information and forward requests where appropriate

Element	Performance criteria
	1.4 Listen actively to the client and question appropriately to clarify and elicit information 1.5 Follow enterprise work health and safety policies
2. Identify sources and extract information	2.1 Identify, access and research relevant sources and locations of information 2.2 Provide clear sequenced verbal instructions to colleagues who require assistance 2.3 Evaluate workplace policies and documentation relevant to the request 2.4 Locate and extract information relevant to the particular request 2.5 Use alternative methods to locate identified gaps in information
3. Evaluate information for meeting client request	3.1 Evaluate information for its validity and reliability and appropriateness to the client request 3.2 Engage client in effective dialogue to clarify indistinct or incorrect information 3.3 Obtain additional information if available information is inadequate, unclear, conflicting or incorrect
4. Prepare and finalise report	4.1 Develop, write, format and proof read report 4.2 Check report for accuracy and intention 4.3 Arrange report's review and sign off with designated person where required 4.4 Make a record of report and correspondence 4.5 Forward report and correspondence to client

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK402A Provide information on issues and policies.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK402 Provide information on issues and policies

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- process a request for information
- access information to respond to a request
- collate information to deal specifically with the request
- prepare a response using chosen media
- maintain a record of the information provided and file for future reference
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- workplace policies and documentation on local, regional, state and national issues
- relevant workplace documentation on international treaties, agreements and charters
- types of information sources
- methods and means of accessing and extracting the required information
- methods of validating information
- types of reports and their uses.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK403 Supervise work routines and staff performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to supervise work routines and staff performance.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Communicate work roles	1.1 Define and document the roles and responsibilities of staff 1.2 Identify the skills of staff and match with available tasks and duties 1.3 Identify the requirements of jobs and communicate to personnel 1.4 Develop information on activities and provide to personnel

Element	Performance criteria
	1.5 Implement work health and safety policy and procedural requirements for supervisors
2. Coordinate activities	2.1 Prioritise work activities to ensure completion of tasks within available timelines 2.2 Develop work plans to establish targets and objectives of activities, and to define tasks and timelines 2.3 Identify training and learning opportunities and incorporate into work activities 2.4 Clarify supervisory and reporting responsibilities and maintain 2.5 Implement enterprise environmental policy and procedures for supervisors
3. Maintain effective working relations	3.1 Recognise and address problems through discussion with work group 3.2 Seek assistance from work group members when difficulties arise in achieving allocated tasks 3.3 Use discussion and information sharing routinely to communicate requirements of work activities through a participative approach 3.4 Manage disagreements and conflicts constructively using appropriate conflict management strategies
4. Provide feedback	4.1 Provide clear and constructive feedback to individuals to support achievement of outcomes 4.2 Identify difficult situations and use negotiation techniques to achieve results 4.3 Monitor team and individual performances regularly to ensure personnel are able to achieve goals 4.4 Maintain supervisory structures and lines of reporting

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK403A Supervise work routines and staff performance.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK403 Supervise work routines and staff performance

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- supervise and instruct staff to achieve work activities
- delegate and allocate tasks
- assess and evaluate staff capability
- identify and provide training requirements
- plan timesheets and timetables to meet deadlines
- demonstrate safe workplace and environmentally responsible practices
- solve staffing and resourcing problems
- evaluate performance, provide feedback and prepare reports and performance appraisals
- promote and maintain effective relationships between staff
- monitor productivity and maintain staff records as required
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- enterprise personnel processes
- enterprise organisational structure and responsibilities
- techniques for building trust and relationships
- principles of team work and negotiation
- leadership for the work team
- performance appraisal systems and procedures
- principles of time management
- conflict management techniques

- enterprise training requirements and processes
- relevant State and Territory legislation, regulations and Codes of Practice with regard to work health and safety, environmental protection and employment
- work health and safety hazard identification, risk assessment and development of risk controls.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK405 Implement and monitor environmentally sustainable work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to effectively analyse the workplace in relation to environmentally sustainable work practices and to implement improvements and monitor their effectiveness.

This unit applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Investigate current practices in relation to resource usage	1.1 Identify environmental regulations applying to the enterprise 1.2 Analyse procedures for assessing compliance with environmental and sustainability regulations

Element	Performance criteria
	<p>1.3 Collect information on environmental and resource efficiency systems and procedures, and provide to the work group where appropriate</p> <p>1.4 Collect, analyse and organise information from a range of sources to provide information, advice, tools and resources for improvement opportunities</p> <p>1.5 Measure and document current resource usage of members of the work group</p> <p>1.6 Analyse and document current purchasing strategies</p> <p>1.7 Analyse current work processes to access information and data to assist in identifying areas for improvement</p> <p>1.8 Follow enterprise work health and safety policies</p>
<p>2. Set targets for improvements</p>	<p>2.1 Seek input from stakeholders, key personnel and specialists</p> <p>2.2 Access external sources of information and data as required</p> <p>2.3 Determine alternative solutions to workplace environmental issues</p> <p>2.4 Set efficiency targets</p>
<p>3. Implement performance improvement strategies</p>	<p>3.1 Source and use appropriate techniques and tools to assist in achieving efficiency targets</p> <p>3.2 Apply continuous improvement strategies to own work area of responsibility, including ideas and possible solutions to communicate to the work group and management</p> <p>3.3 Implement and integrate environmental and resource efficiency improvement plans for own work group with other operational activities</p> <p>3.4 Supervise and support team members to identify possible areas for improved practices and resource efficiency in work area</p> <p>3.5 Seek suggestions and ideas about environmental and resource efficiency management from stakeholders and act upon where appropriate</p> <p>3.6 Implement costing strategies to fully value environmental assets</p> <p>3.7 Implement efficient supply chain procedures</p>
<p>4. Monitor performance</p>	<p>4.1 Use and develop evaluation and monitoring, tools and technology</p> <p>4.2 Document and communicate outcomes to report on efficiency targets to key personnel and stakeholders</p> <p>4.3 Analyse strategies and improvement plans</p> <p>4.4 Set new efficiency targets, and investigate and apply new tools and strategies</p> <p>4.5 Promote successful strategies and reward participants where possible</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK313A Implement and monitor environmentally sustainable work practices.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK405 Implement and monitor environmentally sustainable work practices

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify the environmental regulations applicable to the enterprise
- analyse information on environmental and resource efficiency systems and explain it to the work group
- measure and document current resource use
- analyse current work processes to identify areas for improvement
- set targets for improvement
- implement environmental improvement plans for own work group
- develop and use evaluation and monitoring tools
- apply supervisory skills to work effectively with a team
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant compliance requirements in own area of work
- hazards and risks associated with work area
- environmental and energy efficiency issues, systems and procedures specific to industry practice
- external benchmarks and support for particular benchmarks to be used within enterprise, including approaches to improving resource use for work area and expected outcomes
- work health and safety issues and requirements
- organisational structure and reporting channels and procedures
- quality assurance systems relevant to own work area

- strategies to maximise opportunities and to minimise impact relevant to own work area
- supply chain procedures
- terms and conditions of employment including policies and procedures, such as daily tasks, work area responsibilities, employee, supervisor and employer rights, equal opportunity.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK501 Plan, implement and review a quality assurance program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to plan, implement and review a quality assurance program.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine quality assurance objectives for the enterprise	1.1 Assess future market requirements for quality assured products 1.2 Determine premiums for quality assurance products 1.3 Assess strategic benefits of a quality assurance program

Element	Performance criteria
2. Plan the quality assurance program and develop implementation strategies	2.1 Define product quality standards 2.2 Audit current status of products and operations 2.3 Evaluate and cost industry quality assurance programs 2.4 Document required processes and practices in the quality assurance program manual and prepare an implementation plan
3. Implement the quality assurance program	3.1 Document instructions defining task and process requirements 3.2 Implement contractor and staff training 3.3 Confirm communication takes account of social, cultural and ethnic backgrounds 3.4 Introduce changes to processes and practices 3.5 Establish processes to monitor and verify product quality 3.6 Introduce recording systems 3.7 Validate operating instructions under conditions to verify their suitability 3.8 Analyse problems and issues and resolve appropriately, promptly and decisively 3.9 Conduct system analysis, HAACCP or related processes
4. Review the quality assurance program	4.1 Establish reporting formats 4.2 Implement mechanisms for gaining feedback information 4.3 Make preparations for quality assurance audits

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK501A Plan, implement and review a quality assurance program.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK501 Plan, implement and review a quality assurance program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine quality assurance objectives for the enterprise
- plan the quality assurance program and develop implementation strategies
- implement the quality assurance program
- review the quality assurance program
- maintain required records to support quality assurance
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- market projections and customer requirements
- cost/benefit of quality assurance implementation
- system analysis, HAACCP or related processes
- enterprise culture and values
- leadership and administrative skills
- human resources induction practices
- human resources performance monitoring practices.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK502 Collect and manage data

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to collect, analyse and manage data.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Determine the type and extent of data to be collected	1.1 Define data requirements and communicate to all staff involved in data collection 1.2 Identify relevant data sources 1.3 Define the type and extent of data required 1.4 Identify work health and safety hazards associated with data collecting 1.5 Define data collection methods and techniques relative to data requirements
2. Access and collate data	2.1 Format data collection sheets to assist collection 2.2 Research or collect data from field source 2.3 Collate data by appropriate electronic means 2.4 Monitor appropriateness of data and record during collection 2.5 Research information using appropriate methods and technologies 2.6 Review sources of information regularly for usefulness, validity, reliability and cost 2.7 Use channels and sources of information effectively 2.8 Take opportunities to establish and maintain contacts with those who may provide useful information 2.9 Follow appropriate work health and safety requirements and work practices
3. Evaluate data	3.1 Collect data that is relevant, valid and sufficient 3.2 Seek clarification and assistance where data is unclear or difficult to interpret 3.3 Obtain additional data where data is inadequate 3.4 Analyse information for its validity and reliability
4. Manage and retrieve data	4.1 Store data by appropriate electronic means 4.2 Present data using appropriate graphical aids and techniques 4.3 Assemble data and provide to the manager or client as required 4.4 Retrieve data as required 4.5 Suggest and introduce new methods of recording and storing data as needed
5. Analyse and interpret data	5.1 Analyse data using appropriate statistical and analytical techniques 5.2 Interpret data to determine its significance, validity and reliability 5.3 Report findings based on the analysis and interpretation of the data 5.4 Organise data into a suitable report format to aid decision making

Element	Performance criteria
	5.5 Ensure conclusions drawn are based on reasoned argument and appropriate evidence

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK502A Collect and manage data.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK502 Collect and manage data

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify data requirements and establish sampling and data collection techniques
- collect and collate data using standardised recording sheets and systems
- review sampling and data collection techniques based on validity and reliability of the data
- manage data to facilitate retrieval and analysis
- analyse data using appropriate statistical and analytical techniques
- draw conclusions based on reasoned argument and appropriate evidence
- produce a report in required format with information and data presented to support decision making
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- data collection techniques and procedures
- data recording and evaluation techniques
- data analysis and interpretive techniques
- data storage and retrieval methods
- data reporting methods.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK503 Prepare reports

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to prepare comprehensive reports.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Research material	1.1 Identify and describe the topic of the report 1.2 Determine the sources of information 1.3 Collect and organise information appropriate to the task
2. Evaluate information	2.1 Confirm that information collected is relevant and sufficient to

Element	Performance criteria
	provide a full report 2.2 Seek clarification where information is unclear or difficult to understand and seek assistance if required 2.3 Obtain additional information where available information is inadequate 2.4 Assess information for its validity and reliability and organise into a suitable form to aid decision making 2.5 Confirm that conclusions drawn from relevant information are based on reasoned argument and appropriate evidence
3. Produce a document	3.1 Use language that is applicable to the task and audience 3.2 Organise the document logically, and confirm it is structured and balanced according to purpose, audience and context 3.3 Format the document 3.4 Confirm that conclusions reached reflect the stated objectives of the report 3.5 Complete preparation within the specified timeframe 3.6 Follow enterprise and work health and safety requirements and procedures
4. Deliver a verbal presentation	4.1 Confirm language is applicable to the task and audience 4.2 Use concise and well presented support materials are used in oral presentations 4.3 Allocate sufficient time to allow clear presentation of the desired topic 4.4 Deliver verbal presentation is delivered within a specified time

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK503A Prepare reports.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK503 Prepare reports

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify the purpose of the report and verify it with the client
- conduct research and compile information
- draw conclusions from research supported by reasoned argument and supporting information
- make recommendations if required and reference to information and conclusions
- produce a correctly formatted report document that uses appropriate language and terminology, is arranged in a logical order, and provides details on information sources and consultation
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- information and research sources
- report structure and presentation
- public presentation techniques and approaches.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK504 Assess new industry developments

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to assess new developments of enterprises and of the industry sector as a whole.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Analyse the industry sector	<p>1.1 Develop and maintain knowledge of own and related industry sectors, products, equipment, supply chain, organisations, people, resource management processes and policies, work practices, legislation and regulations</p> <p>1.2 Identify and undertake opportunities for participation in relevant</p>

Element	Performance criteria
	<p>organisations</p> <p>1.3 Identify and access likely sources of credible information as required</p> <p>1.4 Recall and apply relevant historical events, sensitivities and positions of people involved</p> <p>1.5 Analyse state, territory, national and international issues for their relevance to the industry and impact on the enterprise</p>
2. Assess new developments for impact on enterprises and industry sector	<p>2.1 Source industry research and development information and evaluate for relevance</p> <p>2.2 Evaluate risks and opportunities of new developments in industry processes, technologies and quality and environmental requirements</p> <p>2.3 Identify emerging stakeholders and interest groups and assess for their potential benefit or impact on the enterprise and industry sector as a whole</p> <p>2.4 Analyse trends in production, marketing, resource management and research</p> <p>2.5 Identify potential impacts of proposed government initiatives and assess for significance</p> <p>2.6 Assess success and failure of relevant or related initiatives in other industries or enterprises for their relevance</p> <p>2.7 Monitor changing community and customer beliefs, attitudes and expectations</p> <p>2.8 Follow enterprise work health and safety policies</p>
3. Report on new developments	<p>3.1 Integrate evaluated research information in the enterprise or industry sector planning processes</p> <p>3.2 Share research information with others and explore and encourage opportunities for cooperative approaches</p> <p>3.3 Consider implications for use of research information in a wider context with other producers, associates or colleagues</p> <p>3.4 Prepare a report on new industry developments</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK504A Assess new industry developments.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK504 Assess new industry developments

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- critically evaluate information and research findings of relevance to enterprises and industry sector
- integrate research and development into enterprise planning
- evaluate the potential of research proposals with other producers, associates or colleagues
- document a report on new industry developments
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- appropriate avenues to disseminate industry sector information to a range of stakeholders
- correct names and terminology relevant to one's industry sector
- credible sources of information
- key industry development and promotion programs relevant to one's industry sector
- roles and responsibilities of stakeholders and organisation's relevant to own industry sector
- supply chain for industry sector enterprises.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK505 Manage trial and research material

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to manage a trial and research material as part of a designated research project.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify scope and extent of work	1.1 Identify trial and research hypothesis and parameters as required by researchers 1.2 Plan the trial or research to meet research objectives 1.3 Assess the data relevant to managing trial or research materials according to research parameters

Element	Performance criteria
	1.4 Assess data relevant to managing trial or research materials 1.5 Identify work health and safety, assess risks and develop controls and cost and document in the survey design 1.6 Identify and cost tools, equipment and machinery required for managing trial or research materials and confirm availability with suppliers, contractors and appropriate personnel 1.7 Determine research design according to the trial or research plan
2. Oversee management of trial/research materials	2.1 Prepare, maintain and monitor trial or research in line with project parameters 2.2 Conduct field work to verify and collect data as required by the trial or research design and research parameters 2.3 Monitor work activities for accuracy, validity and compliance to the parameters of the trial or research design 2.4 Undertake staged data collection as required by the trial or research design, scheduling and access requirements 2.5 Record monitoring and data
3. Prepare reports on work complete	3.1 Record collected data 3.2 Analyse data statistically to determine significance of research results 3.3 Accept or reject hypothesis based on data collected 3.4 Produce reports which conform to the structure and content required by the researcher

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK505A Manage trial and/or research material.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK505 Manage trial and research material

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- define the purpose of the trial
- identify scope and extent of work
- collate data
- oversee management of trial and research materials
- comply with legislative and enterprise requirements
- draw conclusions and apply findings of trials and research
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- scheduling and programming work within timelines
- ecological principles and terminology
- data collection and reporting
- research procedures and best practice techniques
- enterprise work team management guidelines
- data analysis techniques
- research planning and design
- research methodologies.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK507 Implement professional practice

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to apply ethical standards in dealing with clients, contractors and other stakeholders and conducting business contracts to the required standard.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Investigate and analyse business structures and working practices	1.1 Define the roles and responsibilities of the job role 1.2 Define the roles of various personnel working in a business practice or organisation 1.3 Formulate a range of management approaches and methodologies

Element	Performance criteria
	suitable for business development
2. Develop legal, professional and ethical responsibilities working in industry	2.1 Develop methods of sourcing policies, regulations and standards relevant to a project 2.2 Observe the legal and ethical responsibilities of the job role 2.3 Identify and describe legislation governing protection of intellectual property in Australia and internationally 2.4 Identify issues that need to be addressed when entering into a client and practitioner agreement 2.5 Undertake a range of contracts and agreements used in the industry and demonstrate their application 2.6 Implement the ethical and legal responsibilities in expert witness roles, provision of legal evidence and provision of expert advice 2.7 Apply enterprise work health and safety policies
3. Evaluate and reflect upon own practice	3.1 Demonstrate and promote sustainable practices in own work and the work of others 3.2 Analyse own work to identify influences, style, market relevance and quality in conjunction with supervisors or peers 3.3 Seek feedback actively and accept non defensively
4. Develop a professional practice plan to meet professional goals	4.1 Develop personal and professional goals and objectives 4.2 Identify strengths and weaknesses in relation to goals and objectives 4.3 Evaluate own capacity to meet goals and objectives 4.4 Develop a professional development plan to enhance professional capabilities 4.5 Document a professional practice plan designed to support the achievement of goals
5. Operate within an agreed ethical code of practice/ethics	5.1 Assess own practice against identified objectives or code of ethics using a range of valid evidence 5.2 Identify the effect of values, beliefs and behaviour in work with clients 5.3 Build client relationships in accordance with identified objectives or code of ethics 5.4 Establish realistic goals and targets for self development

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK507A Implement professional practice.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK507 Implement professional practice

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- investigate and analyse business structures and working practice
- develop legal, professional and ethical responsibilities working in an industry
- evaluate and reflect on own work practice
- develop a professional practice plan to meet professional goals
- operate within an agreed ethical code of practice and ethics
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- typical business management structures
- issues of professional practice for the job role
- team roles, responsibilities and accountabilities
- legislation, ethical and financial considerations
- legislation covering protection of copyright and intellectual property
- local and international professional organisations relevant to the industry
- workplace occupational health and safety policies and procedures
- understanding of relevant theories, principles, practices and their application and other aspects of knowledge, desirable or necessary in order to practise effectively within the industry
- expert witness roles and processes
- personal goal setting strategies
- measuring performance

- time management strategies
- marketing principles
- professional practice considerations
- communication principles
- strategies for promoting awareness of a product.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK508 Interpret legislation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to interpret and apply legislation.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine applicable legal framework	1.1 Identify and access current legislation, regulations, organisational procedures, standards and codes of practice affecting the workplace, industry, occupation or client 1.2 Determine legal accountability obligations in relation to workplace, industry, occupation or client

Element	Performance criteria
	1.3 Identify consequences of non-compliance with legislation, regulations, organisational procedures, standards and codes of practice
2. Research, interpret and apply appropriate legislation	2.1 Monitor sources of information for changes to the legal framework 2.2 Regularly update and communicate information and changes to legal framework components which impact on work activities
3. Promote compliance with relevant legislation	3.1 Access current information about the range of legislation and other legally binding policies and protocols relating to own work 3.2 Clarify compliance requirements to confirm understanding and ensure consistency of interpretation and application 3.3 Obtain advice to assist in applying relevant legislation to own work and identifying compliance requirements 3.4 Identify areas of uncertainty in own work related to compliance requirements and take action to clarify issues 3.5 Identify possible implications of non-compliance and use these to guide own work practices
4. Assess situations which may potentially present legal problems and issues	4.1 Identify and document details of suspected or actual incidences of illegal conduct by self or others in the workplace 4.2 Contribute to ongoing monitoring and compliance with legal framework 4.3 Ensure that work is undertaken in a legally compliant manner 4.4 Recognise limits of own expertise, legal accountability obligations and access appropriate sources of expertise as required 4.5 Assess conduct of self and others in the workplace against specific components of the legal framework applicable to the workplace 4.6 Take appropriate actions to resolve or report illegal conduct, as required by applicable legislation, regulations, organisational procedures, standards and codes of practice

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK508A Interpret legislation

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK508 Interpret legislation

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- determine legislation and legal framework applicable to task
- research, interpret and apply appropriate legislation
- promote compliance with relevant legislation
- assess situations which may potentially present legal problems and issues
- maintain knowledge of legal frameworks and relevant legislation
- develop and implement strategies to manage compliance with appropriate legislation
- provide advice and documentation regarding applicable legislation, regulations, organisational procedures and codes of practice
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- the provisions contained in key relevant legislation and other legally binding legal policies and protocols from all levels of government that affect the relevant industry
- relevant Australian Standards
- organisational policies and procedures relating to legislation in organisation's functional area
- penalties for non-compliance with legislative requirements
- auditing requirements
- work health and safety requirements applicable to own work and functional area
- the scope of legal practitioner and support role and own responsibilities and obligations to provide legal advice, complete or sign off on legal work and appear in court as described by relevant jurisdictions
- how to encourage and support own compliance and that of others in the workplace

- relevant conventions, treaties, agreements, guidelines, declarations, recommendations, laws and rules
- how to apply legal information to the workplace
- techniques to monitor compliance and identify illegal conduct
- where to find appropriate sources of information and specialist personnel when limits of own expertise are reached in determining applicable legislation
- accepted codes of practice relevant to the workplace including those relating to:
 - privacy and confidentiality
 - use of company property
 - duty of care
 - ethical behaviour
 - non-discriminatory practice
 - conflict of interest
 - compliance with reasonable direction
 - relevant general legal terminology.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK509 Provide specialist advice to clients

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to maintain technical currency for specialist knowledge and provide specialist advice to clients.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop and maintain specialist knowledge	1.1 Use research skills regularly to build a comprehensive knowledge and understanding of specialist information from industry and other sources 1.2 Identify characteristics of industry practices, products and services and analyse using available documentation

Element	Performance criteria
	1.3 Document information and maintain in a format consistent with enterprise requirements 1.4 Apply acquired knowledge to improve quality within personal work areas 1.5 Identify legislative, regulatory and industry requirements relating to own work
2. Consult with clients	2.1 Conduct consultation with clients in a professional and courteous manner at all times 2.2 Use appropriate interpersonal skills to facilitate accurate and relevant exchange of information 2.3 Use work practices that reflect sensitivity to client's requirements, specific needs and cultural, family and individual differences
3. Provide a response to client enquiries and need	3.1 Prepare information relevant to client's needs 3.2 Use research skills to find verifiable evidence in support of information and document in the appropriate format 3.3 Structure information to identify clear benefits to clients and the organisation 3.4 Document and present information in a professional format and style to the client for consideration and discussion 3.5 Evaluate client feedback by survey to improve future provision of technical information and professional services

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK509A Provide specialist advice to clients

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK509 Provide specialist advice to clients

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- develop and maintain industry wide specialist knowledge
- provide a professional service to client enquiries and needs
- show discretion and judgement in stakeholder interaction
- implement professional practice in stakeholder consultation and report documentation
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- products, treatments services of the industry
- environmental sustainability and land use issues relevant to the industry
- enterprise policy and procedures for customer service including handling customer complaints
- service standards and best practice models
- strategies for planning and monitoring activities
- consultation methods, techniques and protocols
- current enterprise, government and local council policy, legislation and regulations
- mechanisms to obtain and analyse customer feedback.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK510 Audit site operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to audit site operations.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine the scope of the audit	1.1 Prepare objectives and scope of the audit 1.2 Confirm expectations of client or organisation 1.3 Determine the pattern of random or non-random audit events 1.4 Identify individual and personal actions for audit requirements 1.5 Identify groups and processes for audit for audit requirements

Element	Performance criteria
	1.6 Prepare a list of audit items 1.7 Identify legislative, regulatory and industry requirements for audit
2. Specify the audit requirements	2.1 Identify and document precise parameters of acceptable conditions and results 2.2 Describe the relevant sections of Codes of Practice and specific clauses in Australian Standards 2.3 Communicate written guidelines to the audited group and individual staff members 2.4 Provide detailed information to audit groups in a durable format for working conditions
3. Define the audit process	3.1 Determine and assign responsibilities for audit implementation and evaluation 3.2 Determine the timing and frequency of the audit events of audit events 3.3 Confirm schedules and logistical arrangements and plan contingency arrangements 3.4 Confirm expectations with the audited group and individual staff members 3.5 Document audit process and communicate to appropriate people
4. Manage the audit implementation	4.1 Organise an audit meeting in advance at a mutually agreed time 4.2 Examine the activities of audited group and individual staff members 4.3 Identify and record items of compliance and non compliance 4.4 Interview appropriate persons for detailed information, clarification and feedback 4.5 Gather and record relevant information and sample documentation 4.6 Take contingency actions as required and record
5. Evaluate and document the audit findings into a report	5.1 Examine results and findings against audit objectives and present to the audited group or individual 5.2 Seek and reach agreement on corrective action reports 5.3 Explain and discuss context and consequences of audit during follow-up meetings 5.4 Provide feedback on results to client or organisation 5.5 Document the final audit report and present to client or organisation

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK510A Audit site operations

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK510 Audit site operations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify client or organisation expectations
- determine the scope of items for audit
- specify parameters of audit requirements
- define the audit process
- identify compliance and noncompliance items
- implement an audit
- manage the implementation of audits
- plan for and act on contingencies
- evaluate audit findings
- organise scheduling and meetings
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- audit methodology and techniques
- product or service
- quality principles and techniques
- interview techniques
- workplace documentation and policies
- logistics of operations of organisation
- legal issues and terminology relating to quality auditing
- award and enterprise agreements and relevant industrial instruments
- relevant legislation and regulations from all levels of government

- relevant codes of practice, regulations and Standards.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK511 Develop workplace policy and procedures for sustainability

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop workplace policy and procedures for sustainability.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They demonstrate deep knowledge in a specific technical area and analyse, design and communicate solutions to sometimes complex problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop workplace sustainability policy	1.1 Define scope of sustainability policy 1.2 Gather information from a range of sources to plan and develop policy 1.3 Identify and consult stakeholders as a key component of the

Element	Performance criteria
	<p>policy development process</p> <p>1.4 Include appropriate strategies in policy at all stages of work for minimising resource use, reducing toxic material and hazardous chemical use, and employing life cycle management approaches</p> <p>1.5 Make recommendations for policy options based on likely effectiveness, timeframes and cost</p> <p>1.6 Develop policy that reflects the organisation's commitment to sustainability as an integral part of business planning and as a business opportunity</p> <p>1.7 Agree to appropriate methods of implementation</p> <p>1.8 Identify legislative, regulatory and industry requirements relating to environmental sustainability, employment conditions and work health and safety</p>
2. Communicate workplace sustainability policy	<p>2.1 Promote workplace sustainability policy, including its expected outcome to key stakeholders</p> <p>2.2 Inform those involved in implementing the policy as to outcomes expected, activities to be undertaken and responsibilities assigned</p>
3. Implement workplace sustainability policy	<p>3.1 Develop and communicate procedures to help implement workplace sustainability policy</p> <p>3.2 Implement strategies for continuous improvement in resource efficiency</p> <p>3.3 Establish and assign responsibility to use recording systems for tracking continuous improvements in sustainability approaches</p>
4. Review workplace sustainability policy implementation	<p>4.1 Document outcomes and provide feedback to key personnel and stakeholders</p> <p>4.2 Investigate successes or otherwise of policy</p> <p>4.3 Monitor records to identify trends that may require remedial action and use to promote continuous improvement of performance</p> <p>4.4 Modify policy and or procedures as required to ensure improvements are made</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK511A Develop workplace policy and procedures for sustainability

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK511 Develop workplace policy and procedures for sustainability

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- participate in planning, development and implementation of organisational policy that complies with legislative requirements
- communicate with stakeholders to discuss approaches to policy development and implementation and contribute to the resolution of disputes that may arise due to different points of view
- develop and monitor policies for analysing data on enterprise resource consumption
- review policies and identify improvements while benchmarking against industry best practice
- implement new approaches as required
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- best practice approaches relevant to own work area
- environmental or sustainability legislation, regulations and codes of practice applicable to industry and organisation
- equal employment opportunity, equity and diversity principles and work health and safety implications of policy being developed
- policy development processes and practices
- principles, practices and available tools and techniques of sustainability management relevant to the particular industry context
- quality assurance systems relevant to own organisation
- relevant industry competency

- relevant organisational policies, procedures and protocols
- relevant systems and procedures to aid in the achievement of workplace sustainability.

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK601 Monitor projects in a program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor and report on requirements at a program level including interim, annual and final project reporting.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Review project milestones	1.1 Log project milestones for approved projects within the program for monitoring 1.2 Use negotiated and approved changes to milestones to adjust the monitoring records
2. Check progress against	2.1 Maintain contact with groups and coordinators to monitor project

Element	Performance criteria
milestones	progress against agreed timelines 2.2 Keep records of progress for reporting purposes 2.3 Identify variations from agreed progress for reporting and response purpose 2.4 Submit requests for change in project milestones and timelines for approval as required
3. Summarise progress	3.1 Prepare regular progress reports as required by program and agency 3.2 Discuss progress reports with groups, coordinators and others 3.3 Consolidate project reports into program reports as required
4. Assist groups maintain project timeline	4.1 Review group activities and resources where required achievement may not or has not been met 4.2 Develop strategies to place the project back onto required plan with coordinator and community group leaders 4.3 Submit documented proposed changes in project for approval by group initially, and then to program and agency requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK601A Monitor projects in a program.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK601 Monitor projects in a program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- review project milestones
- check progress against milestones
- summarise progress
- assist groups maintain project timelines
- monitor resource usage against the project plan
- use industry standard terminology to describe.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- group and regional cultures including diverse groups of people
- program and agency reporting requirements
- reporting formats
- project management
- financial reporting
- project management computer applications.

Assessment Conditions

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK602 Lead and manage community or industry organisations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to lead and manage community or industry organisations.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Guide the organisation in the achievement of its aims	1.1 Examine and confirm the strategic direction of the organisation 1.2 Undertake a leadership role in the strategic planning, goal setting and action planning of the organisation 1.3 Promote a clear understanding of organisational purpose is with

Element	Performance criteria
	stakeholders 1.4 Define and document clear roles and responsibilities for those in the organisation
2. Design and implement communication	2.1 Communicate the organisation's policies and directions through documents and presentations 2.2 Define reporting mechanisms clearly and produce reports in line with organisational policy and guidelines 2.3 Define protocols for communication
3. Establish and maintain effective relationships	3.1 Establish a code of behaviour covering disagreements and negotiation in consultation with others in organisation 3.2 Employ different strategies to deal with a variety of personality types 3.3 Manage conflict to seek mutually beneficial solutions 3.4 Achieve consensus in decision-making within the organisation where appropriate 3.5 Maintain and promote stakeholder relationships 3.6 Apply and promote effective meeting procedures within the organisation
4. Establish and manage professional and business networks	4.1 Influence decision-making in other relevant forums to align with organisation's best interests 4.2 Gather and acknowledge views for consideration and representation 4.3 Achieve win-win outcomes through lobbying and negotiations 4.4 Maintain contemporary knowledge of issues and political factors
5. Build effective teams in the organisation	5.1 Demonstrate and maintain ethical behaviour and appropriate inter-personal skills in all dealings 5.2 Adapt leadership style to suit a range of differing contexts 5.3 Canvas opinion leaders and gain institutional support for the organisation 5.4 Recruit new members for the organisation 5.5 Provide relevant information to new and potential members

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK602A Lead and manage community or industry organisations

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK602 Lead and manage community or industry organisations

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- guide the organisation in the achievement of its aims
- design and implement communication
- establish and maintain effective relationships
- establish and manage professional and business networks
- promote team building
- use industry standard terminology.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- leadership styles, roles and responsibilities
- strategic planning
- development and implementation of organisational policy and procedures
- ethics and codes of behaviour
- conflict management
- meeting procedures and protocols
- negotiation and consensus in decision-making.

Assessment Conditions

Assessors must satisfy current standards for RTOs

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCWRK603 Design and conduct a field-based research trial

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design and conduct a field-based research trial.

This unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information and exercise judgement to complete a range of advanced skilled activities.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Work (WRK)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Design the trial	<p>1.1 Identify problems and opportunities that support undertaking a trial and define the trial subject and projected outcomes as required by enterprise guidelines, market research, client requirements, cost analysis and cost benefits to the enterprise</p> <p>1.2 Undertake research into available evidence to establish the</p>

Element	Performance criteria
	<p>performance criteria of the subject, product or treatment to be trialled and the trial design</p> <p>1.3 Locate trial sites according to trial design requirements and enterprise capabilities and identify site factors and incorporate into the trial design</p> <p>1.4 Identify and obtain approvals and permits required to conduct the trial</p> <p>1.5 Establish data collection and recording specifications according to the trial design and follow proper conventions and controls to satisfy statistical audit requirements and eliminate variables according to sound clinical practice</p>
2. Prepare to conduct the trial	<p>2.1 Identify workplace health and safety hazards, assess risks and develop control measures, and cost and document in the trial design</p> <p>2.2 Identify environmental implications associated with implementation of the trial and document in the trial design</p> <p>2.3 Identify and cost materials, tools, equipment and machinery required for the trial and confirm availability with suppliers, contractors and appropriate personnel</p> <p>2.4 Establish and prepare trial sites for implementation of the trial</p> <p>2.5 Document detailed trial site plans, trial specifications and trial procedures clearly and comprehensively in the trial design</p>
3. Conduct the trial	<p>3.1 Undertake staged data collection throughout the course of the trial</p> <p>3.2 Monitor trial implementation for accuracy, compliance to the trial design and out-of-specification procedures or events</p> <p>3.3 Record all monitoring and trial data</p>
4. Assess practical application of trial outcome	<p>4.1 Undertake statistical auditing for the trial outcomes and follow proper conventions and controls to eliminate variables according to sound clinical practice</p> <p>4.2 Draw conclusions from relevant information that are based on appropriate evidence and reasoned arguments</p> <p>4.3 Assess trial outcomes for practical application, based on conclusions drawn from the trial</p>

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCWRK603A Design and conduct a field-based research trial

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK603 Design and conduct a field-based research trial

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- establishing sound research parameters that enables achievable results
- conducting research consistent with recognised scientific practice
- calculate the cost and spatial and logistical requirements of components of the trial
- enter, analyse and organise data in a mathematically sound and accurately graphed, charted or tabled representation, consistent with the trial design
- comply with legislative requirements
- use of industry standard terminology
- awareness of workplace health and safety in the context of own work
- appropriate sustainability practices in the context of own work.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- growth habits, physiological properties and taxonomic specification of animals and plants involved in the trial
- physical and biochemical properties of products involved in the trial
- properties and current, best practice application of treatments involved in the trial
- scientific and mathematical trialling, data collection, processing and analytical techniques and procedures
- auditing and reporting procedures
- the enterprise business and marketing plans
- enterprise work team management guidelines
- bio-ethics (where animals are involved in the trial).

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AMPMGT806 Commercialise research and technology product or idea

Modification History

Release	TP Version	Comment
1	AMPv1.0	Initial release

Application

This unit describes the skills and knowledge required to undertake the fundamentals of product/idea commercialisation. It describes the process from conception to launch to full production.

Competency requires developing the skills and knowledge to successfully research, analyse, cost and develop a business opportunity for a product/idea. This unit also describes the skills required to manage commercialisation and evaluate product success.

This unit applies to leaders or managers responsible for developing a commercialisation strategy for an innovative product or technique, which has been developed through research.

Leaders undertaking product commercialisation must investigate and negotiate the legal and partnership implications of commercialisation, undertake market testing and develop commercialisation strategies.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Investigate commercialisation options	1.1 Describe product/innovation to be commercialised 1.2 Analyse innovation alignment against organisation's innovation objectives 1.3 Research, analyse and test market opportunities 1.4 Investigate optimum business structure and funding options
2. Develop commercialisation proposal	2.1 Determine resourcing requirements 2.2 Develop marketing plan 2.3 Determine supply chain strategy 2.4 Determine strategies for managing Intellectual Property (IP) 2.5 Determine environmental sustainability of proposed product/idea 2.6 Develop risk mitigation plan 2.7 Negotiate proposal modifications with key stakeholders
3. Prepare for implementation	3.1 Develop project implementation plan 3.2 Determine monitoring process 3.3 Establish and develop required business processes 3.4 Assemble project team

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

MTMBUS706A Commercialise research and technology product/idea	E
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Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

Assessment Requirements for AMPMGT806 Commercialise research and technology product or idea

Modification History

Release	TP Version	Comment
1	AMPv1.0	Initial release

Performance Evidence

Candidates must undertake the fundamentals of product/idea commercialisation from conception to launch to full production.

Candidates must demonstrate ability to:

- analyse market trends
- budget, including forecasting, capacity and asset analysis, setting targets and compliance mechanisms
- negotiate licensing IP (in and out), contractual supply chain arrangement and partnerships
- use communication skills to:
 - maintain appropriate relationships with colleagues and others
 - value and be open to the opinions of others
 - work as part of a team
 - model collaborative communication and learning
 - use active listening and negotiation skills
 - present and negotiate proposals
 - seek opinions and feedback from a range of stakeholders
 - develop plain English texts dealing with complex ideas and concepts
- generate and evaluate ideas by analysing information and concepts at an abstract level
- provide strategic leadership during change and negotiation processes
- use problem-solving, initiative and enterprise skills to:
 - direct, motivate, consult and delegate appropriately
 - collect, analyse and interpret data using a range of methods
 - shape strategic thinking and inspire others with a shared vision
 - work with teams with diverse emotional intelligence and cognitive ability
- provide leadership in workplace health and safety practice, ethical standards and legislative requirements

- review own personal and professional competence against personal development objectives
- support and use participative arrangements aimed at establishing trust
- to develop, negotiate and structure an agreed commercialisation strategy
- to apply leadership style and approach appropriate to individuals involved, outcomes being sought and contextual factors

Knowledge Evidence

Candidates must demonstrate specialised and integrated technical and theoretical knowledge of:

- relevant legislation
- business strategies and legal requirements underpinning trademarks, copyright and patents
- legal requirements underpinning partnership arrangements, contracts and taxation
- commercial environmental analysis techniques, including Strengths, Weaknesses, Opportunities, Threats (SWOT)/TOWS
- market testing strategies and techniques
- strategies for analysing and assessing the upstream and downstream implications of an innovation
- risk assessment strategies and techniques
- team selection, management and support strategies
- environmental sustainability principles

Assessment Conditions

Competency must be demonstrated through sustained performance over time, at an appropriate level of responsibility and under typical operating and production conditions for the enterprise.

Assessment must ensure:

- access to an actual workplace or simulated environment
- assessment over a sufficient timeframe to allow holistic assessment of the candidate's capacity to lead the development of a commercialisation strategy
- resources normally used in the workplace, including organisational policies and procedures, and relevant legislation
- access to stakeholders, potential partners and clients

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

BSBADM409 Coordinate business resources

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to determine and analyse existing and required resources, their effective application and the accountability for their use.

It applies to individuals with a broad knowledge of business resources who contribute well developed skills and knowledge to ensure adequate resources are available to perform the work of the organisation. They may have responsibility to provide guidance or to delegate aspects of these tasks to others.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Administration – General Administration

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Determine resource requirements	1.1 Determine resource requirements in accordance with business and operational plans and organisational requirements 1.2 Provide opportunities to individuals and workgroups to contribute to the identification of resource requirements 1.3 Ensure resource expenditure is realistic and makes efficient use of available budget resources 1.4 Present recommendations on resource requirements in the

ELEMENT	PERFORMANCE CRITERIA
	required format, style and structure using relevant business equipment and technology
2 Acquire and allocate resources	2.1 Acquire physical resources and services in accordance with organisational requirements 2.2 Check resources to ensure quality and quantity are in line with service agreements 2.3 Allocate resources promptly to enable achievement of workgroup objectives 2.4 Ensure consultation with individuals and teams on allocation of resources is participative and is conducted using appropriate interpersonal skills
3 Monitor and report on resource allocation and usage	3.1 Measure effectiveness of resource planning and assess against actual costs, identified shortfalls and surpluses 3.2 Develop and implement methods of monitoring resource use to enable timely and accurate reporting against business and operational plans 3.3 Identify improvements in resource planning through consultation and feedback, and implement in accordance with organisational requirements 3.4 Maintain records concerning equipment and resource purchases in accordance with organisational requirements

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 2.2, 3.1, 3.3, 3.4	<ul style="list-style-type: none"> Identifies and interprets information from organisational plans, policies and procedures
Writing	1.4, 2.1, 3.1-3.4	<ul style="list-style-type: none"> Develops a range of documents using structure and vocabulary appropriate to audience, context and purpose
Oral Communication	1.2, 2.4, 3.3	<ul style="list-style-type: none"> Participates effectively in spoken interactions using active listening and questioning to confirm and clarify understanding

Numeracy	1.3, 2.2, 3.1, 3.2	<ul style="list-style-type: none"> Interprets and comprehends a range of mathematical information that is embedded in familiar texts Calculates and compares numeric data to track expenditure
Navigate the world of work	1.1, 2.1, 3.3, 3.4	<ul style="list-style-type: none"> Recognises and responds to explicit and implicit organisational procedures and protocols and legislative/regulatory requirements
Interact with others	1.2, 1.4, 2.4, 3.3	<ul style="list-style-type: none"> Selects the appropriate form, channel and mode of communication for a specific purpose relevant to own role Cooperates with others as part of familiar routine activities playing an active role in facilitating group interaction
Get the work done	1.1, 1.3, 1.4, 2.1, 2.2, 2.3, 3.1, 3.2	<ul style="list-style-type: none"> Applies formal processes when planning complex tasks, producing plans with logically sequenced steps, reflecting an awareness of time constraints Recognises and takes responsibility for addressing predictable problems in familiar work contexts Utilises a range of features within digital applications to access, store and share information Reflects on the ways in which variables impact on decision outcomes to identify improvement opportunities

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBADM409 Coordinate business resources	BSBADM409A Coordinate business resources	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBADM409 Coordinate business resources

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- monitor resource usage
- maintain records of resource requirements and usage
- calculate costs and expenditures in relation to use and maintenance of business resources
- acquire and allocate physical resources and services to team members
- consult and communicate with individuals and teams about acquiring and using resources
- monitor, review and report on resource use acquisition, allocation, use and procedures
- follow organisational policies and procedures in relation to business resource acquisition and monitoring.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe the functions of business equipment used in an organisation and identify common faults
- identify organisational policies, plans and procedures in relation to business resource acquisition and monitoring.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the general administration field of work and include access to:

- records relating to business resources
- policies and procedures relating to resources

- case studies, and where possible, real situations.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBADM504 Plan and implement administrative systems

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to plan for or review the requirements of effective administrative systems and procedures for implementing, monitoring and reviewing the system.

It applies to individuals employed in a range of work environments in senior administrative roles.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Administration – General Administration

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Plan for the new or modified administrative system	<p>1.1 Identify requirements of, or modifications to, the administrative system through consultation with system users and other stakeholders in accordance with organisational and budgetary requirements</p> <p>1.2 Obtain quotations from suppliers/developers for the identified requirements or modifications to be made to the system in accordance with organisational policy and procedures</p> <p>1.3 Select supplier or developer in accordance with organisational</p>

ELEMENT	PERFORMANCE CRITERIA
	policy and procedures
2 Implement new or modified administrative system	<p>2.1 Identify and develop implementation strategies in consultation with staff</p> <p>2.2 Encourage staff to participate in all stages of the implementation process</p> <p>2.3 Implement system in accordance with organisational and legislative requirements</p> <p>2.4 Define and communicate procedures for using the system to staff</p> <p>2.5 Provide training and support for staff on the use of the new or modified system</p> <p>2.6 Deal with contingencies to ensure minimal impact on users</p>
3 Monitor administrative system	<p>3.1 Monitor system for usage, security and output in accordance with organisational requirements</p> <p>3.2 Modify system to meet changing needs in accordance with organisational requirements</p> <p>3.3 Clearly identify further modifications and notify users</p> <p>3.4 Monitor staff training needs and train new staff on administrative system</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Learning	2.5, 3.4	<ul style="list-style-type: none"> Actively reinforces own knowledge and skills by training or mentoring others
Reading	1.2, 1.3, 3.1	<ul style="list-style-type: none"> Extracts, analyses and evaluates information from complex texts, including organisational policies and procedures
Writing	1.1, 2.1, 2.4, 3.2, 3.3	<ul style="list-style-type: none"> Gathers and utilises information and ideas from a range of sources to create texts to meet organisational requirements Creates instructional texts using grammatical structures and vocabulary appropriate to audience and

		context
Oral Communication	1.1, 2.1, 2.2, 2.4, 2.5, 3.4	<ul style="list-style-type: none"> Participates in verbal exchanges using appropriate style, tone and vocabulary for audience, context and purpose Uses listening and questioning techniques to elicit key information and confirm understanding Presents complex information adjusting presentation style and vocabulary to suit the audience
Numeracy	1.1, 1.2	<ul style="list-style-type: none"> Recognises and interprets numerical information related to budgets
Navigate the world of work	1.1-1.3, 2.3, 2.4, 3.1	<ul style="list-style-type: none"> Develops systems to meet organisational and legislative requirements
Interact with others	1.1, 1.2, 2.1, 2.2, 2.4	<ul style="list-style-type: none"> Selects the appropriate form, channel and mode of communication for a specific purpose relevant to own role Collaborates with others to achieve joint outcomes, providing guidance to others , where necessary
Get the work done	1.1-1.3, 2.1, 2.3, 2.4, 2.6, 3.2, 3.3	<ul style="list-style-type: none"> Applies formal processes when planning complex tasks, producing plans with logically sequenced steps, reflecting an awareness of time constraints Monitors progress of plans and changes them to meet new demands or priorities Systematically gathers and analyses all relevant information and evaluates options to make informed decisions Anticipates potential problems and implements contingency plans as soon as warning signs are recognised Uses and investigates new digital technologies and applications to manage and manipulate data Demonstrates awareness of the importance of data security in a digital environment

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBADM504 Plan and implement administrative	BSBADM504B Plan or review administrative	Updated to meet Standards for Training Packages	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
systems	systems	Minor title change Minor correction to wording in elements and performance criteria - 'administration' changed to 'administrative'	

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBADM504 Plan and implement administrative systems

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- work with relevant personnel and stakeholders to identify administrative system improvements
- document necessary requirements or modifications
- provide training and support for staff to use the new or modified system
- monitor the new system and identify future improvements and staff training needs.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

summarise relevant legislative and organisational policies and procedures for reviewing administrative systems

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the general administration field of work and include access to:

- organisational policy and procedure manuals
- reference materials
- appropriate equipment.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBCMM401 Make a presentation

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0

Application

This unit covers the skills and knowledge required to prepare, deliver and review a presentation to a target audience.

This unit applies to individuals who may be expected to make presentations for a range of purposes, such as marketing, training and promotions. They contribute well developed communication skills in presenting a range of concepts and ideas.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Communication – Interpersonal Communication

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Prepare a presentation	1.1 Plan and document presentation approach and intended outcomes 1.2 Choose presentation strategies, format and delivery methods that match the characteristics of the target audience, location, resources and personnel needed 1.3 Select presentation aids, materials and techniques that suit the format and purpose of the presentation, and will enhance audience understanding of key concepts and central ideas

ELEMENT	PERFORMANCE CRITERIA
	1.4 Brief others involved in the presentation on their roles/responsibilities within the presentation 1.5 Select techniques to evaluate presentation effectiveness
2 Deliver a presentation	2.1 Explain and discuss desired outcomes of the presentation with the target audience 2.2 Use presentation aids, materials and examples to support target audience understanding of key concepts and central ideas 2.3 Monitor non-verbal and verbal communication of participants to promote attainment of presentation outcomes 2.4 Use persuasive communication techniques to secure audience interest 2.5 Provide opportunities for participants to seek clarification on central ideas and concepts, and adjust the presentation to meet participant needs and preferences 2.6 Summarise key concepts and ideas at strategic points to facilitate participant understanding
3 Review the presentation	3.1 Implement techniques to review the effectiveness of the presentation 3.2 Seek and discuss reactions to the presentation from participants or from key personnel involved in the presentation 3.3 Utilise feedback from the audience or from key personnel involved in the presentation to make changes to central ideas presented

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 1.3, 2.2	<ul style="list-style-type: none"> Reviews and analyses documents to identify information relevant to a specific presentation
Writing	1.1, 3.3	<ul style="list-style-type: none"> Develops material to convey ideas and information to target audience in an engaging way
Oral	1.4, 2.1, 2.2, 2.3,	<ul style="list-style-type: none"> Presents information using words and non-verbal features appropriate to the audience and context

Communication	2.4, 2.5, 2.6, 3.2	<ul style="list-style-type: none"> • Uses listening and questioning techniques to gather information required to develop or modify presentations • Interprets audience reactions and changes words or non-verbal features accordingly
Interact with others	1.4, 2.1, 2.2, 2.4, 2.5, 2.6, 3.2	<ul style="list-style-type: none"> • Selects and uses appropriate conventions and protocols to encourage interaction or to present information • Demonstrates sophisticated control over oral, visual and written formats, drawing on a range of communication practices to achieve goals • Recognises the need to alter personal communication style in response to the needs or expectations of others
Get the work done	1.1-1.5, 2.2, 2.5, 3.1-3.3	<ul style="list-style-type: none"> • Takes responsibility for planning, sequencing and prioritising tasks and own workload to achieve outcomes • Uses feedback from others, analytical and lateral thinking to review current practices and develop new ideas • Uses the main features and functions of digital tools to complete work tasks

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBCMM401 Make a presentation	BSBCMM401A Make a presentation	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBCMM401 Make a presentation

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- prepare and deliver presentations related to occupation or area of interest which demonstrate the use of:
 - effective presentation strategies and communication principles
 - aids and materials to support the presentation
- select and implement methods to review the effectiveness of own presentation and document any changes which would improve future presentations.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify information collection methods that will support review and feedback of presentations
- identify regulatory and organisational obligations and requirements relevant to presentations
- describe the principles of effective communication
- describe the range of presentation aids and materials available to support presentations.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced by individuals using interpersonal communication skills in the workplace and include access to:

- equipment, materials and business software packages for making a presentation
- business technology
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBCOM602 Develop and create compliance requirements

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to plan, develop and validate compliance requirements.

It applies to individuals who are responsible for the compliance requirements of an organisation. It also applies to individuals in regulatory authorities, licensing authorities, statutory standards authorities, professional associations and institutes, government departments or other organisations who are responsible for establishing compliance requirements to be fulfilled by other organisations and personnel.

Application of this unit must be consistent with the pertinent sections of relevant Australian and international standards and legislative requirements including: AS 3806:2006 Compliance programs, AS ISO 10002:2006 Customer satisfaction – Guidelines for complaints handling in organizations, AS/NZS 4360:2004 Risk management and AS ISO 15489:2004 Records management.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Regulation, Licensing and Risk – Compliance

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

ELEMENT	PERFORMANCE CRITERIA
1 Clarify the purpose and scope of the proposed compliance requirements	<p>1.1 Determine the authority for the compliance requirements in conjunction with relevant personnel</p> <p>1.2 Clarify the purpose of the compliance requirements with relevant authorised personnel</p> <p>1.3 Determine the scope of the proposed compliance requirements in consultation with relevant internal and/or external personnel</p> <p>1.4 Clarify the implications of non-compliance with the proposed compliance requirements and evaluate in consultation with relevant internal and/or external personnel</p> <p>1.5 Identify and interpret relevant Australian and international standards pertaining to the proposed compliance requirements and related compliance program/management system</p>
2 Prepare the development plan	<p>2.1 Establish a suitable project methodology to identify and consult with relevant stakeholders who have an interest in the proposed compliance requirements</p> <p>2.2 Prepare the plan for the proposed project to develop compliance requirements</p> <p>2.3 Obtain approval of plan from relevant internal and/or external personnel</p>
3 Consult with relevant stakeholders	<p>3.1 Identify relevant internal and/or external stakeholders in the compliance requirements</p> <p>3.2 Consult stakeholders on compliance requirements in accordance with the established methodology</p> <p>3.3 Interpret, analyse and organise outcomes of consultations with stakeholders</p> <p>3.4 Summarise findings and issues determined through the consultation process and draft appropriate recommendations on compliance requirements</p>
4 Prepare the initial draft report on the proposed compliance requirements	<p>4.1 Prepare the initial draft report on the proposed compliance requirements including information on the findings, issues and recommended requirements identified through the consultation processes</p> <p>4.2 Submit draft report to the development team for consideration and make any changes required in preparation for validation consultations</p>
5 Obtain feedback on draft compliance	<p>5.1 Determine an appropriate sample of stakeholders for the validation process in collaboration with the other members of the</p>

ELEMENT	PERFORMANCE CRITERIA
requirements	<p>development team in accordance with the established methodology</p> <p>5.2 Disseminate the draft compliance requirements to the identified sample of stakeholders using appropriate techniques and technology</p> <p>5.3 Collate, interpret and analyse feedback received on the draft compliance requirements</p> <p>5.4 Summarise and organise outcomes of the feedback process in preparation for editing of the draft compliance requirements</p>
6 Edit and document recommended compliance requirements	<p>6.1 Edit the draft compliance requirements appropriately based on the feedback obtained from stakeholders</p> <p>6.2 Format and proofread the edited compliance requirements in accordance with the agreed methodology</p> <p>6.3 Submit the recommended compliance requirements in the required format to authorised personnel for consideration and due process for approval and implementation</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.5, 3.3, 3.4, 4.1, 5.3, 5.4, 6.1, 6.2	<ul style="list-style-type: none"> Comprehends and analyses texts to identify key requirements Identifies, analyses, reviews and extracts relevant information from complex texts Proofreads draft texts to identify changes required
Writing	2.1-2.3, 3.3, 3.4, 4.1, 4.2, 5.3, 5.4, 6.1, 6.2	<ul style="list-style-type: none"> Collates, summarises and compiles information from a range of sources Develops materials for a specific audience using clear and detailed language to convey findings and recommendations Edits and incorporates amendments to ensure compliance with regulatory or organisational requirements
Oral Communication	1.1-1.4, 2.3, 3.2, 5.1	<ul style="list-style-type: none"> Conveys or seeks information, in a format and style appropriate to a specific audience

		<ul style="list-style-type: none"> Elicits the views and opinions of others by listening and questioning
Navigate the world of work	1.5	<ul style="list-style-type: none"> Identifies organisational implications of legislative requirements and considers these when planning and implementing work
Interact with others	1.1-1.4, 2.3, 3.2, 5.1	<ul style="list-style-type: none"> Collaborates with others using effective interpersonal skills to facilitate shared understanding Identifies and uses appropriate conventions and practices when communicating with internal and external personnel
Get the work done	1.4, 1.5, 2.1, 2.2, 2.3, 3.1-3.3, 4.1, 4.2, 5.1-5.4, 6.1-6.3	<ul style="list-style-type: none"> Sequences and schedules complex activities, monitors implementation and manages required communication with others Gathers and analyses data and feedback to improve outcomes Utilises features and functions of digital tools to complete complex tasks

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBCOM602 Develop and create compliance requirements	BSBCOM602B Develop and create compliance requirements	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBCOM602 Develop and create compliance requirements

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- access and interpret information on relevant Australian and international standards
- collaborate with others to clarify the purpose and scope of the compliance requirements
- plan the compliance requirements using a suitable project methodology
- consult relevant stakeholders about compliance requirements according to the approved plan
- prepare draft recommendations on compliance requirements based on information collected during consultations
- collaborate with others to conduct a validation process on the draft compliance requirements
- document the final compliance requirements according to organisational requirements.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline relevant compliance requirements
- explain methods and techniques suitable for the development and creation of compliance requirements
- outline elements of compliance program/management systems including:
 - documentation of compliance requirements relevant to the organisation
 - specification of compliance management functions, accountabilities and responsibilities within the organisation
 - compliance related management information systems
 - record keeping systems required for compliance management

- liaison procedures with relevant internal and external personnel on compliance related matters
 - breach management policies and processes including the identification, classification, investigation, rectification and reporting of breaches in compliance requirements
 - compliance reporting procedures
 - corporate induction and training processes related to compliance management
 - processes for the internal and external sharing and promotion of information on compliance requirements and a compliance program management system
 - compliance complaints handling systems
 - continuous improvement processes for compliance including monitoring, evaluation and review
 - strategies for developing a positive compliance culture within the organisation
 - techniques and performance indicators for monitoring the operation of a compliance program/management system
 - reporting processes on compliance management including reports on breaches and rectification action.
- explain relevant organisational policies and procedures including compliance plans in various compliance area and organisational standards for operations and ethics.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the compliance field of work and include access to:

- organisational policies and procedures and documentation relevant to compliance requirements
- Australian and international standards relevant to compliance requirements
- interaction with others
- computer resources and business technology
- case studies and, where possible, real situations.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBCUS301 Deliver and monitor a service to customers

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to identify customer needs, deliver and monitor customer service and identify improvements in the provision of customer service.

It applies to individuals who apply a broad range of competencies in various work contexts. In this role, individuals often exercise discretion and judgement using appropriate theoretical knowledge of customer service to provide technical advice and support to customers over short or long term interactions.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Stakeholder Relations – Customer Service

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Identify customer needs	1.1 Use appropriate interpersonal skills to accurately identify and clarify customer needs and expectations 1.2 Assess customer needs for urgency to determine priorities for service delivery according to organisational and legislative requirements 1.3 Use effective communication to inform customers about available choices for meeting their needs and assist in the selection

ELEMENT	PERFORMANCE CRITERIA
	<p>of preferred options</p> <p>1.4 Identify limitations in addressing customer needs and seek appropriate assistance from designated individuals</p>
2 Deliver a service to customers	<p>2.1 Provide prompt service to customers to meet identified needs in accordance with organisational and legislative requirements</p> <p>2.2 Establish and maintain appropriate rapport with customers to ensure completion of quality service delivery</p> <p>2.3 Sensitively and courteously handle customer complaints in accordance with organisational and legislative requirements</p> <p>2.4 Provide assistance or respond to customers with specific needs according to organisational and legislative requirements</p> <p>2.5 Identify and use available opportunities to promote and enhance services and products to customers</p>
3 Monitor and report on service delivery	<p>3.1 Regularly review customer satisfaction with service delivery using verifiable evidence according to organisational and legislative requirements</p> <p>3.2 Identify opportunities to enhance the quality of service and products, and pursue within organisational and legislative requirements</p> <p>3.3 Monitor procedural aspects of service delivery for effectiveness and suitability to customer requirements</p> <p>3.4 Regularly seek customer feedback and use to improve the provision of products and services</p> <p>3.5 Ensure reports are clear, detailed and contain recommendations focused on critical aspects of service delivery</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.2 2.1, 2.3, 2.4, 3.1, 3.5	<ul style="list-style-type: none"> Comprehends textual information to determine customer service requirements Proofreads texts for clarity of meaning and accuracy of grammar and punctuation

Writing	2.3, 3.5	<ul style="list-style-type: none"> Completes responses to customer complaints in required format Prepares reports using sequencing, format and words to communicate recommendations clearly and effectively
Oral Communication	1.1, 1.3, 1.4, 2.2, 2.3, 2.4	<ul style="list-style-type: none"> Provides information or advice using structure and language to suit the audience Asks questions and listens to gain information or confirm understanding
Navigate the world of work	1.2, 2.1-2.4, 3.1, 3.2	<ul style="list-style-type: none"> Recognises, understands and applies organisational policies and procedures relevant to role
Interact with others	1.1, 1.3, 1.4, 2.2, 2.3, 2.4, 3.4	<ul style="list-style-type: none"> Selects and uses appropriate communication conventions to establish connections, build rapport, seek information and develop professional working relationships Adjusts personal communication style in response to the opinions, values and particular needs of others
Get the work done	1.2, 2.3, 2.5, 3.1-3.5	<ul style="list-style-type: none"> Plans and implements systems to gather and organise information Monitor actions and progress against goals and implements adjustments as appropriate Uses problem-solving skills to analyse and respond to customer complaints or enquiries Identifies and follows up on opportunities to improve work practices and outcomes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBCUS301 Deliver and monitor a service to customers	BSBCUS301B Deliver and monitor a service to customers	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBCUS301 Deliver and monitor a service to customers

Modification History

Release	Comments
Release 1	This version first released with Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- use communication skills to establish rapport and build relationships with customers in accordance with organisational requirements
- identify customer needs using appropriate questioning and active listening skills
- provide customer service in accordance with organisational requirements
- respond to and record customer feedback and action taken according to organisational standards, policies and procedures
- produce a report which identifies and recommends ways to improve service delivery.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- summarise key provisions of relevant legislation from all levels of government that may affect aspects of business operations
- explain organisational policy and procedures for customer service, including handling customer complaints
- provide examples of verifiable evidence that could be used to review customer satisfaction
- outline the interpersonal skills needed for serving customers, including customers with specific needs.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the customer service field of work and include access to:

- office equipment and technology
- workplace documents, organisational policies and procedures for customer service
- examples of customer complaints and feedback
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBCUS501 Manage quality customer service

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify assessment conditions
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to develop strategies to manage organisational systems that ensure products and services are delivered and maintained to standards agreed by the organisation.

It applies to individuals who supervise the provision of quality customer service within an organisation's procedures framework by others. At this level, individuals must exercise considerable discretion and judgement, using a range of problem solving and decision making strategies.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Stakeholder Relations – Customer Service

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Plan to meet internal and external customer	1.1 Investigate, identify, assess, and include the needs of customers in planning processes

ELEMENT	PERFORMANCE CRITERIA
requirements	1.2 Ensure plans achieve the quality, time and cost specifications agreed with customers
2 Ensure delivery of quality products and services	2.1 Deliver products and services to customer specifications within organisation's business plan 2.2 Monitor team performance to consistently meet the organisation's quality and delivery standards 2.3 Help colleagues overcome difficulties in meeting customer service standards
3 Monitor, adjust and review customer service	3.1 Develop and use strategies to monitor progress in achieving product and/or service targets and standards 3.2 Develop and use strategies to obtain customer feedback to improve the provision of products and services 3.3 Develop, procure and use resources effectively to provide quality products and services to customers 3.4 Make decisions to overcome problems and to adapt customer services, products and service delivery in consultation with appropriate individuals and groups 3.5 Manage records, reports and recommendations within the organisation's systems and processes

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 2.1, 3.1, 3.2, 3.3, 3.5	<ul style="list-style-type: none"> Interprets and analyses textual information from a variety of sources and applies the knowledge that has been gained to evaluate standards for organisation's products and services
Writing	1.2, 3.1, 3.2, 3.3, 3.5	<ul style="list-style-type: none"> Produces a range of text types to convey information, requirements or recommendations matching style of writing to purpose and audience
Oral Communication	1.1, 1.2, 2.1, 2.3, 3.2	<ul style="list-style-type: none"> Clearly articulates systems and standards in a team environment using language suitable to diverse audiences Uses listening and questioning techniques to obtain

		feedback and confirm understanding
Numeracy	1.2	<ul style="list-style-type: none"> Interprets and comprehends mathematical information in organisation's business and customer service plans.
Navigate the world of work	2.1, 2.2, 3.1, 3.5	<ul style="list-style-type: none"> Recognises and applies organisational protocols and meets expectations associated with own work
Interact with others	1.1, 2.3, 3.4	<ul style="list-style-type: none"> Identifies and uses appropriate conventions and protocols when communicating with colleagues and customers Collaborates with others, taking into account their strengths and experience, to achieve desired outcomes Provides support in field of expertise to team
Get the work done	1.1, 1.2, 2.1, 2.2, 3.1-3.5	<ul style="list-style-type: none"> Develops and implements plans using logical processes and monitors and evaluates progress against stated goals Accepts responsibility for addressing complex or non-routine difficulties, applying problem solving processes in determining a solution. Uses digital technology to access, organise and present information in a format that meets requirements

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBCUS501 Manage quality customer service Release 2	BSBCUS501 Manage quality customer service Release 1	Updated to clarify assessment conditions	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBCUS501 Manage quality customer service

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0 Version created to clarify assessment conditions
Release 1	This version first released with Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- develop and manage organisational systems for quality customer service
- develop and review plans, policies and procedures for delivering and monitoring quality customer service
- implement policies and procedures to ensure quality customer service
- solve complex customer complaints and system problems that lead to poor customer service
- monitor and assist teams to meet customer service requirements
- develop, procure and use human and physical resources to support quality customer service delivery.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the legislative and regulatory context of the organisation relevant to customer service
- describe organisational policy and procedures for customer service including handling customer complaints
- identify service standards and best practice models
- summarise public relations and product promotion
- outline techniques for dealing with customers including customers with specific needs

- explain techniques for solving complaints including the principles and techniques involved in the management and organisation of:
 - customer behaviour
 - customer needs research
 - customer relations
 - ongoing product and/or service quality
 - problem identification and resolution
 - quality customer service delivery
 - record keeping and management methods
 - strategies for monitoring, managing and introducing ways to improve customer service relationships
 - strategies to obtain customer feedback.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the customer service field of work and include access to:

- legislation, regulations and codes of practice related to customer service
- business technology
- workplace documentation and resources
- complex customer complaints
- case studies and, where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBDES305 Source and apply information on the history and theory of design

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to source information on design history and theory, and to apply that information in the individual's design work.

It applies to individuals who work in design and need to develop and maintain a general knowledge of design history and theory.

More complex research into design theory and design trends is covered by BSBDES602 Research global design trends and BSBDES801 Research and apply design theory.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Design – Design Process

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Collect information on design history and theory	1.1 Identify and access relevant sources of information on design history and theory 1.2 Organise research material and findings for current or future use in design practice, facilitating easy access and

ELEMENT	PERFORMANCE CRITERIA
	cross-referencing
2 Apply information to own area of work	2.1 Evaluate information in the context of current design practice 2.2 Assess which aspects of information on design history and theory could be used or adapted to inform current practice 2.3 Use relevant information in a culturally appropriate way to develop an understanding of own area of work
3 Update and maintain knowledge of design trends	3.1 Identify and use opportunities to update and expand knowledge of design trends and developments 3.2 Incorporate and integrate knowledge into design activities

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 2.1, 3.1	<ul style="list-style-type: none"> Identifies, interprets and evaluates information on historical and current design trends from a range of sources
Writing	1.2, 3.1	<ul style="list-style-type: none"> Notes findings and sources of information for design knowledge, trends and developments Documents information for colleagues and peers as requested
Oral Communication	1.1, 3.1	<ul style="list-style-type: none"> Asks questions to clarify information, listens to responses and shares ideas with others
Navigate the world of work	2.3	<ul style="list-style-type: none"> Understands main tasks, responsibilities and boundaries of own role
Get the work done	1.1, 1.2, 2.2, 3.2	<ul style="list-style-type: none"> Plans and implements tasks required to achieve required outcomes Contributes to new approaches within immediate work environment Takes responsibility for routine low-impact decisions within familiar situations Follows routine procedures for using digital technology to enter, store and retrieve information

		directly relevant to role
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBDES305 Source and apply information on the history and theory of design	BSBDES305A Source and apply information on the history and theory of design	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBDES305 Source and apply information on the history and theory of design

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- show how the history and theory of design can be adapted and used in own professional practice
- maintain currency of theoretical and design knowledge.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- summarise current design trends
- describe the evolution of design
- identify the organisational information practices and their application
- outline sources of information on design history and theory relevant to own design work.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the design process field of work and include access to information sources on design history and theory.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBDES403 Develop and extend design skills and practice

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to develop and extend skills as a practising designer.

It applies to individuals who work as a designer, in any industry context, either independently or employed by an organisation.

Designers must continually refine, develop and evaluate their own conceptual and technical skills. Research, experimentation and collaboration are key factors in this process.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Design – Design Process

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Acquire and develop technical skills	1.1 Plan strategies to ensure the development of appropriate technical skills in design practice 1.2 Plan and use opportunities to develop and assess technical skills 1.3 Identify and use practice, feedback, discussion and evaluation

ELEMENT	PERFORMANCE CRITERIA
	<p>opportunities to continuously improve technical skills</p> <p>1.4 Develop and extend technical skills through testing capabilities of materials, tools and equipment</p> <p>1.5 Identify and use relevant media to stimulate technical and professional development</p>
2 Develop conceptual skills and ideas	<p>2.1 Engage in ongoing experimentation and exploration of different ideas and techniques</p> <p>2.2 Discuss ideas with others and apply knowledge gained to inform own work</p> <p>2.3 Use work practice to gain experience in a range of genres and interpretations</p> <p>2.4 Study the work of others to stimulate conceptual and technical skills development</p> <p>2.5 Research and share ideas across a range of design disciplines</p> <p>2.6 Identify and use a range of opportunities to develop own skills and keep informed about current design practice</p>
3 Develop own voice	<p>3.1 Explore and experiment with new ideas in making and/or interpreting design work</p> <p>3.2 Explore and use technology, where appropriate, to develop own voice and expand practice</p> <p>3.3 Demonstrate own voice through design project realisation implementation</p>
4 Evaluate own work	<p>4.1 Seek and apply constructive criticism from others to improve own work</p> <p>4.2 Evaluate own work against planned strategy for own practice</p> <p>4.3 Evaluate own work in the context of work by others to extend own practice</p> <p>4.4 Adjust work processes and practice as necessary to improve technical, conceptual and commercial outcomes</p>
5 Research work opportunities	<p>5.1 Correctly identify sources of information relating to work opportunities for designers</p> <p>5.2 Identify networks and promotional opportunities for designers which may be helpful in developing career opportunities</p> <p>5.3 Incorporate research results and information into own work and career planning</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Learning	1.1-1.5, 2.2, 2.4, 2.6, 3.2, 4.1-4.3	<ul style="list-style-type: none"> Uses practical strategies to identify and implement improvements in own creative skills and technical design skills and practice
Reading	1.5, 2.4, 2.5, 5.1-5.3	<ul style="list-style-type: none"> Researches and evaluates a variety of textual information from a wide range of sources
Writing	2.5, 4.1, 5.3	<ul style="list-style-type: none"> Uses clear and specific language to document ideas, feedback and research results
Oral Communication	1.3, 2.2, 2.5, 4.1	<ul style="list-style-type: none"> Participates in a range of verbal exchanges and presentations using appropriate tone and vocabulary to suit the audience Uses active listening and questioning techniques to clarify and confirm understanding
Navigate the world of work	1.2, 1.3, 2.3, 4.1, 5.2	<ul style="list-style-type: none"> Recognises the importance of developing technical skills and of learning from feedback and self-reflection Begins to broaden areas of interest and focus, seeking new challenges and recognising that expertise can be adapted and applied in diverse contexts
Interact with others	2.5, 4.1, 5.2	<ul style="list-style-type: none"> Begins to cultivate relationships with people with the knowledge, skills and influence to provide collaborative support
Get the work done	1.1, 1.2, 1.4, 1.5, 2.1, 2.3, 2.6, 3.1-3.3, 4.2, 4.4, 5.1	<ul style="list-style-type: none"> Takes responsibility for planning and implementing tasks required to achieve outcomes, including those times when interaction with others is Systematically analyses and evaluates information to aid in decision making and problem solving Applies some basic principles of lateral thinking to generate new or innovative ideas Recognises the potential of new approaches to enhance work practices and outcomes Evaluates effectiveness of decisions on how well they meet stated goals Understands key principles and concepts underpinning the design and operation of digital systems and applies these when seeking to understand the potential of new technology

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBDES403 Develop and extend design skills and practice	BSBDES403A Develop and extend design skills and practice	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBDES403 Develop and extend design skills and practice

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- use strategies to develop or extend skills, ideas and a unique voice
- adjust work processes as a result of peer feedback and self-evaluation
- research work options, networking and promotional opportunities and incorporate information into own work and career development.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- list current and emerging designers in the relevant design discipline
- discuss current and emerging trends and technologies in the relevant design discipline, and the opportunities and challenges they represent
- identify professional development information and resources available to designers
- summarise sources of information relating to work opportunities and career planning.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the design process field of work and include access to materials, resources and equipment used in the development of technical and conceptual skills in the relevant design context.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBDES501 Implement design solutions

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to take a design concept or solution to the implementation stage. The outcome of work could be a completed product, object, system or service, but is more likely to be a complete or partial prototype or model for the design. The focus of the unit is on a general knowledge of design techniques and processes, and practical application to a specific design context.

It applies to individuals who implement concepts and solutions in response to a design challenge in any industry context.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Design – Design Process

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Organise resources for realising the design solution	1.1 Confirm the nature and scope of the proposed design solution 1.2 Research resources required for developing the design concept to implementation stage 1.3 Investigate different factors impacting the selection and use of resources 1.4 Select and prepare resources based on research and other

ELEMENT	PERFORMANCE CRITERIA
	legislative or organisational requirements
2 Test the design solution	<p>2.1 Experiment with a range of different techniques and processes to test the design solution</p> <p>2.2 Evaluate, challenge and refine testing processes</p> <p>2.3 Gain input and feedback from key stakeholders during testing</p> <p>2.4 Accurately document outcomes of testing</p> <p>2.5 Select final design solution based on outcomes of testing and input from others</p>
3 Develop prototype or model	<p>3.1 Create prototype or model based on agreed approaches</p> <p>3.2 Select and organise materials, tools and equipment, where appropriate, according to chosen design solution</p> <p>3.3 Expose model or prototype to quality checks and ongoing analysis, enhancement and refinement</p> <p>3.4 Compare completed prototype or model against identified needs and other considerations and make adjustments as required</p>
4 Present prototype or model	<p>4.1 Identify key stakeholders design should be presented to</p> <p>4.2 Select appropriate format for presentation based on nature of audience and design</p> <p>4.3 Present prototype or model to optimise clarity, conciseness and appeal</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.4, 3.4	<ul style="list-style-type: none"> Researches and accurately interprets textual information from a wide range of sources
Writing	1.2, 1.3, 2.3, 2.4, 3.4, 4.3	<ul style="list-style-type: none"> Documents research, resource requirements and testing outcomes using appropriate language and formats
Oral Communication	1.1, 2.3, 4.3	<ul style="list-style-type: none"> Participates in a range of verbal exchanges and presentations using appropriate tone and vocabulary to suit audience

		<ul style="list-style-type: none"> • Uses active listening and questioning techniques to gain input and feedback
Numeracy	1.1-1.3, 2.4, 2.5	<ul style="list-style-type: none"> • Interprets and applies numeric information relevant to design solution • Compares numerical data gathered from testing
Navigate the world of work	1.4	<ul style="list-style-type: none"> • Understands and adheres to organisational policies, procedures and legislative requirements during planning and implementation of design solution
Interact with others	4.3	<ul style="list-style-type: none"> • Recognises importance of taking audience, purpose and contextual factors into account when making decisions about what to communicate, with whom, why and how
Get the work done	1.1-1.4, 2.1, 2.2, 2.5, 3.1-3.4, 4.1, 4.2	<ul style="list-style-type: none"> • Sequences and schedules routine and complex activities, monitors implementation, and manages relevant communication • Applies formal problem-solving processes when responding to unpredictable issues and challenges that arise during the testing process • Makes a range of critical and non-critical decisions in relatively complex situations, taking client requirements and range of constraints into account • Creates new or innovative ideas through exploration, analysis and critical thinking

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBDES501 Implement design solutions	BSBDES501A Implement design solutions	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBDES501 Implement design solutions

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- undertake critical analysis, testing and development of a model, prototype or aspect of a design solution to meet an identified need
- present model to key stakeholders using the most appropriate best practice methods.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain the elements and principles of design and their application in relevant design context
- describe key features of the wider industry, with the economic, social and historical context for the design solution
- discuss design trends and technologies including other designs and the work of other design practitioners in the relevant context
- summarise sources of information that support the development of technical and other knowledge
- describe the technical expertise, resources, materials, tools, equipment, techniques and industry processes required for the area the design solutions are being implemented in.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the design process field of work and include access to:

- other people to reflect the collaborative nature of the design process

- resources required to test a design solution in a given industry context including materials, tools, equipment and expertise.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBDES502 Establish, negotiate and refine a design brief

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to work proactively with a client or commissioning organisation to develop and negotiate a design brief.

It applies to individuals working in any industry or design context where the designer plays a key role in determining the scope and nature of work required. Establishment, negotiation and refinement of a design brief requires the integration of highly-developed creative thinking, communication and planning skills in a process that may not be linear. Adaptability and effective responses to change and new ideas are crucial.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Design – Design Process

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Establish design requirements	1.1 Identify and make appropriate contact with relevant stakeholders for the design project, in addition to the client 1.2 Identify and source information and references relevant to the design project 1.3 Undertake critical analysis of sources and extract key information to inform the design project

ELEMENT	PERFORMANCE CRITERIA
	<p>1.4 Liaise with client and other key stakeholders to determine overall objectives and parameters for the design project</p> <p>1.5 Proactively seek, review and act on information needed to inform constructive communication with client</p> <p>1.6 Build trust and respect between self and client through effective communication and demonstration of professional integrity</p>
2 Develop and refine design brief	<p>2.1 Develop concepts and ideas for inclusion in design brief, taking account of overall objectives and parameters</p> <p>2.2 Undertake own analysis of concept and challenge ideas and approaches taken to ensure responsiveness to project needs</p> <p>2.3 Present ideas in an appropriate format/medium and seek feedback from key stakeholders</p> <p>2.4 Use effective communication techniques to generate discussion, debate and critical analysis</p> <p>2.5 Re-evaluate and refine options based on own analysis and discourse with others</p> <p>2.6 Establish and agree on final nature and scope of design brief with client and accurately document details</p>
3 Negotiate terms and conditions	<p>3.1 Negotiate and agree terms and conditions of brief in accordance with relevant organisational and professional standards</p> <p>3.2 Clarify, agree and document roles and responsibilities of those involved in the project</p> <p>3.3 Confirm agreements in writing in accordance with organisational requirements</p> <p>3.4 Identify the need for specialist advice when developing formal agreements or contracts, and seek appropriate assistance</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.2, 1.3, 2.2, 2.5	<ul style="list-style-type: none"> Identifies and interprets textual information from

		various sources to develop ideas and concepts
Writing	1.1, 1.3-1.5, 2.1-2.3, 2.6, 3.1-3.3	<ul style="list-style-type: none"> Develops a range of documents using appropriate vocabulary, context and formatting for different audiences
Oral Communication	1.1, 1.4-1.6, 2.3, 2.4, 2.6, 3.1, 3.2	<ul style="list-style-type: none"> Participates in discussions to elicit views of others by asking questions and listening to responses Presents ideas and seeks feedback from others using appropriate tone, vocabulary and language structures
Numeracy	1.2-1.4	<ul style="list-style-type: none"> Interprets and applies numeric information relevant to design brief
Navigate the world of work	1.2, 1.3, 3.1, 3.3, 3.4	<ul style="list-style-type: none"> Identifies and adheres to organisational policies and procedures, industry standards and legislative requirements during planning and design of design solution
Interact with others	1.1, 1.4-1.6, 2.3, 2.4, 2.6, 3.1, 3.4	<ul style="list-style-type: none"> Uses appropriate communication conventions and protocols to seek information from stakeholders Uses a range of collaborative techniques to clarify and refine ideas and negotiate agreeable outcomes with others
Get the work done	1.1-1.3, 1.5, 2.1, 2.2, 2.5, 3.2	<ul style="list-style-type: none"> Sequences and schedules complex activities, monitors implementation, and manages relevant communication Applies formal problem-solving processes when responding to unpredictable issues and challenges that arise during the testing process Makes a range of critical and non-critical decisions in relatively complex situations, taking client and organisational requirements and possible constraints into account Generates new or innovative ideas or concepts through exploration, analysis and critical thinking

Range of Conditions

This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Information and references relevant to the design brief must include consideration of:	<ul style="list-style-type: none"> legislative and regulatory context financial/budgetary information organisational materials technical reports/data.
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBDES502 Establish, negotiate and refine a design brief	BSBDES502A Establish, negotiate and refine a design brief	Updated to meet Standards for Training Packages Minor edit to clarify meaning of PC 3.4	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBDES502 Establish, negotiate and refine a design brief

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- develop and finalise at least TWO design briefs for a specific industry purpose
- demonstrate highly-developed interpersonal skills, self-evaluation techniques and the ability to seek expert advice when required.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- discuss the legal issues that affect negotiations and contracts in the relevant work context
- explain the design process within the specific industry context/design discipline
- compare and contrast the scope, nature and potential variations that occur within design briefs relevant to a specific context
- identify sources of information to assist the development of design concepts within a specific industry context.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the design process field of work and include access to:

- appropriate equipment and media to communicate and present ideas and concepts
- sources of information relevant to industry context
- interaction with others to reflect the collaborative nature of the work, and communication and negotiation skills required.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBFIA301 Maintain financial records

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to maintain daily financial records such as reconciling debtors' and creditors' systems, preparing and maintaining a general ledger and trial balance and includes activities associated with monitoring cash control for accounting purposes.

It applies to individuals who are skilled operators and apply a broad range of competencies in various work contexts and may exercise discretion and judgement using appropriate theoretical knowledge of financial records.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Finance – Financial Administration

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Maintain daily financial records	<p>1.1 Correctly maintain daily financial records in accordance with organisational and legislative requirements for accounting purposes</p> <p>1.2 Identify and rectify or refer discrepancies or errors in documentation or transactions to designated persons in accordance with organisational and legislative requirements</p>

ELEMENT	PERFORMANCE CRITERIA
	1.3 Accurately credit and debit transactions and promptly enter into journals in accordance with organisational and legislative requirements
2 Maintain general ledger	2.1 Maintain general ledger in accordance with organisational and legislative requirements 2.2 Post transactions into general ledger in accordance with organisational and legislative reporting requirements 2.3 Reconcile systems for accounts payable and receivable with general ledger 2.4 Accurately prepare trial balance from general ledger in accordance with organisational and legislative requirements
3 Monitor cash control	3.1 Ensure cash flow is accurately accounted for in accordance with organisational and legislative requirements 3.2 Make and receive payments in accordance with organisational and legislative requirements 3.3 Collect or follow up outstanding accounts within designated timelines 3.4 Check payment documentation for accuracy of information and despatch to creditors within designated timeline

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.1-2.4, 3.1-3.4	<ul style="list-style-type: none"> Recognises and interprets numerical and textual information to determine and complete required activities
Writing	1.3, 2.1-2.4, 3.1-3.4	<ul style="list-style-type: none"> Integrates data from different sources and records numerical information in a format appropriate to context and purpose of material Prepares clear and detailed information and instructions using format, structure and tone suitable to audience
Oral	1.2, 3.2, 3.3	<ul style="list-style-type: none"> Explains financial issues and requirements clearly, using facts and examples, and uses listening and

Communication		questioning techniques to obtain sequenced instructions
Numeracy	1.1-1.3, 2.1-2.4, 3.1-3.4	<ul style="list-style-type: none"> Uses a limited range of mathematical calculations to reconcile amounts using whole numbers and decimals and arrange/compare numerical information
Navigate the world of work	1.1-1.3, 2.1-2.4, 3.1-3.3	<ul style="list-style-type: none"> Recognises, understands and monitors adherence to legislative and organisational requirements in undertaking own work
Interact with others	3.3, 3.4	<ul style="list-style-type: none"> Understands the importance of using appropriate practices and protocols when handling confidential information
Get the work done	1.1-1.3, 2.1-2.4, 3.1-3.4	<ul style="list-style-type: none"> Takes responsibility for own workload and monitors adherence to specified goals and timelines Uses digital technologies to access, record, store, organise and compile data as required

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBFIA301 Maintain financial records	BSBFIA301A Maintain financial records	<p>Updated to meet Standards for Training Packages</p> <p>Minor edits to clarify meaning of performance criteria</p>	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBFIA301 Maintain financial records

Modification History

Release	Comments
Release 1	This version first released with Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- maintain daily transactions and identify and respond to discrepancies and errors
- transfer and record financial data accurately
- reconcile expenditures and revenue in a timely manner.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify the key provisions of relevant legislation, codes of practice and national standards that may affect financial record keeping
- discuss organisational policies and procedures relating to maintaining financial records
- define credits/creditors and debits/debtors
- describe principles of double entry bookkeeping and accrual accounting
- identify methods of presenting financial data.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the financial administration field of work and include access to:

- office equipment and resources
- computer equipment and relevant software
- examples of source documents relating to financial record keeping
- case studies and, where possible, real situations.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBFIA302 Process payroll

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes skills and knowledge required to process payroll from provided data using manual and computerised payroll systems.

It applies to individuals employed in a range of work environments who are responsible for payroll functions within an organisation. They may work as individuals providing administrative support within an enterprise, or may be other members of staff who have been delegated payroll responsibilities.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Finance – Financial Administration

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Record payroll data	1.1 Check payroll data and clarify discrepancies with designated persons 1.2 Enter employee pay period details and any deductions and allowances in payroll system in accordance with source documents 1.3 Calculate payment due to individual employees to reflect standard pay and variations in accordance with employee source

ELEMENT	PERFORMANCE CRITERIA
	data
2 Prepare payroll	<p>2.1 Prepare payroll within designated timelines and in accordance with organisational policy and procedures</p> <p>2.2 Reconcile total wages for pay period, check or correct irregularities or refer to designated persons for resolution</p> <p>2.3 Make arrangements for payment in accordance with organisational and individual requirements</p> <p>2.4 Obtain authorisation of payroll and individual pay advice in accordance with organisational requirements</p> <p>2.5 Produce, check and store payroll records in accordance with organisational policy and security procedures</p> <p>2.6 Follow security procedures for processing payroll and for maintaining payroll records</p>
3 Handle payroll enquiries	<p>3.1 Respond to payroll enquiries in accordance with organisational and legislative requirements</p> <p>3.2 Provide information in accordance with organisational and legislative requirements</p> <p>3.3 Ensure all enquiries outside area of responsibility and knowledge are referred to designated persons for resolution</p> <p>3.4 Complete additional information or follow-up action within designated timelines in accordance with organisational policy and procedures</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.1-2.6, 3.1-3.4	<ul style="list-style-type: none"> Interprets a range of textual information to determine activities required
Writing	1.1-1.3, 2.1-2.6, 3.1-3.4	<ul style="list-style-type: none"> Accurately records textual information and maintains personal and banking details using format, language and structure in context

Oral Communication	1.1, 3.1-3.4	<ul style="list-style-type: none"> Explains financial issues clearly using terminology and tone appropriate to audience Uses questioning and listening skills in verbal exchanges to clarify information
Numeracy	1.1-1.3, 2.1, 2.2, 2.5, 3.1-3.3	<ul style="list-style-type: none"> Uses a limited range of mathematical calculations to calculate and reconcile amounts and arrange/compare numerical information
Navigate the world of work	1.2, 1.3, 2.1, 2.3-2.6, 3.1, 3.2, 3.4	<ul style="list-style-type: none"> Adheres to legislative requirements and organisational policies and procedures relevant for own work
Interact with others	1.1, 2.2, 3.1-3.3	<ul style="list-style-type: none"> Selects the appropriate mode of communication for a specific purpose Collaborates with others to achieve predetermined goals
Get the work done	1.1-1.3, 2.1-2.6, 3.2, 3.4	<ul style="list-style-type: none"> Takes responsibility for own workload and monitors adherence to specified goals and timelines Recognises and takes responsibility for resolving problems relevant to own role Takes responsibility for routine low-impact decisions within familiar situations Uses digital technologies to access, record, store, organise and compile data as required

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBFIA302 Process payroll	BSBFIA302A Process payroll	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBFIA302 Process payroll

Modification History

Release	Comments
Release 1	This version first released with Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- plan and perform payroll calculations in accordance with all legislative and organisational requirements, and predetermined timelines
- refer enquiries outside area of responsibility to an appropriate authority.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify the key provisions of relevant legislation, standards and codes of practice that may affect payroll operations
- outline relevant organisational policies and procedures
- list the different types of payroll systems.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the financial administration field of work and include access to:

- office equipment and resources
- computer with relevant software
- payroll data (samples or actual)
- case studies and, where possible, real situations.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBFIA402 Report on financial activity

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to report financial activity for business both in response to client requests and to meet statutory requirements such as the completion of financial reports.

This unit applies to individuals with a broad knowledge of financial activities who contribute financial skills and knowledge to address reporting requirements of clients and legal authorities. They may have responsibility to provide guidance or to delegate aspects of these tasks to others.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Finance – Financial Administration

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Compile financial information and data	1.1 Collect, evaluate and code current financial data to ensure consistency, quality and accuracy in accordance with organisational requirements 1.2 Use conversion and consolidation procedures to compile analysis in accordance with organisational requirements 1.3 Make, record and disclose asset and liability valuations in

ELEMENT	PERFORMANCE CRITERIA
	<p>accordance with organisational requirements</p> <p>1.4 Ensure that discrepancies, unusual features or queries are identified, resolved or referred to the appropriate authority</p>
2 Prepare statutory requirement reports	<p>2.1 Correctly record income and expenditure to ensure compliance with statutory requirements</p> <p>2.2 Calculate liabilities for tax in accordance with current legislation and revenue gathering practices</p> <p>2.3 Correctly identify relevant receipts, revenue documentation and payments</p> <p>2.4 Ensure that statements and claims take full advantage of available benefits and allowances in accordance with statutory requirements</p> <p>2.5 Submit statutory requirement reports to appropriate authorities within stated deadlines</p>
3 Provide financial business recommendations	<p>3.1 Ensure that recommendations are logically derived and supported by evidence in report</p> <p>3.2 Provide recommendations to propose constructive actions to enhance the effectiveness and efficacy of functions and services</p> <p>3.3 Ensure recommendations are concise and facilitate direction and control of organisation's operations</p> <p>3.4 Identify and prioritise significant issues in statements including comparative financial performances for review and decision making</p> <p>3.5 Ensure structure and format of reports are clear and conform to organisational and statutory requirements</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.4, 2.1-2.5, 3.1-3.5	<ul style="list-style-type: none"> Compares and analyses information from a range of sources varying in complexity to determine and complete financial requirements
Writing	1.1-1.4, 2.1, 2.2, 2.4,	<ul style="list-style-type: none"> Records numerical and textual information incorporating required financial language organising

	2.5, 3.1-3.5	data in a manner that supports the format and purpose of the document
Oral Communication	1.4, 3.2, 3.3	<ul style="list-style-type: none"> • Presents financial issues and requirements clearly, succinctly and based on own findings using language appropriate to audience and environment • Exchanges and obtains information from others by listening and questioning
Numeracy	1.1-1.4, 2.1-2.5, 3.1, 3.4, 3.5	<ul style="list-style-type: none"> • Establishes criteria and categories for financial management purposes and monitors activities on a regular basis • Uses a wide range of mathematical calculations to interpret and arrange/compare numerical information in order to comply with requirements
Navigate the world of work	1.1-1.4, 2.1-2.5, 3.1, 3.3, 3.5	<ul style="list-style-type: none"> • Recognises, understands and applies applicable legislation, industry standards and organisational policies and procedures in the conduct of own work
Interact with others	1.4, 2.5	<ul style="list-style-type: none"> • Selects and uses appropriate conventions and protocols when communicating with external stakeholders to supply required information
Get the work done	1.1-1.4, 2.1, 2.2, 2.5, 3.4	<ul style="list-style-type: none"> • Uses formal and logical processes to plan and complete tasks, achieving timelines and organisational requirements • Uses analytical skills to identify discrepancies, attempts to resolve the issues within the context of own responsibilities and, where appropriate, consults with more experienced colleagues for assistance • Uses a range of digital technologies to access, record, store, organise, compile, analyse and present complex data from multiple sources of information

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBFIA402 Report on financial activity	BSBFIA402A Report on financial activity	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBFIA402 Report on financial activity

Modification History

Release	Comments
Release 1	This version first released with Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- organise and present financial data including budget variances, budgets and forecasts, cash flow/profit reports, balance sheets, financial year reports, operating statements, expenditure and receipts and profit and loss statements to highlight relevant features and meet workplace requirements
- use conversion and consolidation procedures such as moving averages, standardised variables, trend analysis and unit costs
- identify, resolve or refer discrepancies such as absence of auditable trail, expenditure report mismatches, incorrect payments and unreconciled cash flows
- record income and expenditure to meet statutory requirements
- calculate liabilities for tax including completing Business Activity Statements
- provide financial business recommendations
- apply knowledge of relevant legislation and regulations
- perform double entry bookkeeping and accrual accounting.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify the key provisions of legislation, regulation and codes of practice relevant to financial operations
- describe the techniques used for forecasting and analysis
- identify the options, methods and practices for deductions, benefits and depreciations.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the financial administration field of work and include access to:

- office equipment and resources
- computer with relevant software
- examples of financial data, reports and documents
- workplace financial policies and procedures
- case studies and, where possible, real situations.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBFIM501 Manage budgets and financial plans

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to undertake financial management within a work team in an organisation. It includes planning and implementing financial management approaches, supporting team members whose role involves aspects of financial operations, monitoring and controlling finances and reviewing and evaluating effectiveness of financial management processes.

It applies to managers in a wide range of organisations and sectors who have responsibility for ensuring that work team financial resources are used effectively and are managed in line with financial objectives of the team and organisation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Finance - Financial Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Plan financial management approaches	1.1 Access budget/financial plans for the work team 1.2 Clarify budget/financial plans with relevant personnel within the organisation to ensure that documented outcomes are achievable, accurate and comprehensible 1.3 Negotiate any changes required to be made to budget/financial

ELEMENT	PERFORMANCE CRITERIA
	plans with relevant personnel within the organisation 1.4 Prepare contingency plans in the event that initial plans need to be varied
2 Implement financial management approaches	2.1 Disseminate relevant details of the agreed budget/financial plans to team members 2.2 Provide support to ensure that team members can competently perform required roles associated with the management of finances 2.3 Determine and access resources and systems to manage financial management processes within the work team
3 Monitor and control finances	3.1 Implement processes to monitor actual expenditure and to control costs across the work team 3.2 Monitor expenditure and costs on an agreed cyclical basis to identify cost variations and expenditure overruns 3.3 Implement, monitor and modify contingency plans as required to maintain financial objectives 3.4 Report on budget and expenditure in accordance with organisational protocols
4 Review and evaluate financial management processes	4.1 Collect and collate for analysis, data and information on the effectiveness of financial management processes within the work team 4.2 Analyse data and information on the effectiveness of financial management processes within the work team and identify, document and recommend any improvements to existing processes 4.3 Implement and monitor agreed improvements in line with financial objectives of the work team and the organisation

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 2.1, 2.3, 3.1-3.4, 4.2, 4.3	<ul style="list-style-type: none"> Interprets and analyses information to determine activities required

Writing	1.1, 1.4, 4.1-4.3	<ul style="list-style-type: none"> Records information in correct forms and prepares materials which convey detailed and factual content in accordance with internal procedures
Oral Communication	1.2, 1.3, 2.1-2.3	<ul style="list-style-type: none"> Presents information about financial issues and requirements to a range of audiences using structure and language to suit the audience Uses active listening and questioning to clarify information and to confirm understanding
Numeracy	1.1-1.3, 2.1-2.3, 3.1-3.4, 4.1-4.3	<ul style="list-style-type: none"> Uses a wide range of mathematical calculations to analyse numeric information in budgets or financial plans
Navigate the world of work	2.2, 3.3, 3.4, 4.3	<ul style="list-style-type: none"> Recognises, understands and adheres to organisational requirements in undertaking own work
Interact with others	1.2, 1.3, 2.1, 2.2, 3.1, 2.3, 4.2, 4.3	<ul style="list-style-type: none"> Uses a range of strategies to connect, collaborate and cooperate with other work colleagues in activities requiring collective effort and diverse skills and knowledge
Get the work done	1.1, 1.4, 2.3, 3.1-3.4, 4.1-4.3	<ul style="list-style-type: none"> Uses logical processes in planning, implementing and evaluating complex tasks and developing alternative strategies in achieving goals and timelines Uses a range of digital technologies to access, filter, compile, integrate and logically present complex information from multiple sources

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBFIM501 Manage budgets and financial plans	BSBFIM501A Manage budgets and financial plans	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBFIM501 Manage budgets and financial plans

Modification History

Release	Comments
Release 1	This version first released with Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- use financial skills to work with and interpret budgets, ageing summaries, cash flow, petty cash, Goods and Services Tax (GST), and profit and loss statements
- communicate with relevant people to clarify budget/financial plans, negotiate changes and disseminate information
- prepare, implement and modify financial contingency plans
- monitor expenditure and control costs
- support and monitor team members
- report on budget and expenditure
- review and make recommendations for improvements to financial processes
- meet record keeping requirements for the Australian Taxation Office (ATO) and for auditing purposes.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe basic accounting principles
- identify and explain the relevant legislation and current requirements of the Australian Taxation Office, including the Goods and Services Tax (GST)
- explain the key requirements for financial record keeping and auditing
- describe the principles and techniques involved in managing:
 - budgeting
 - cash flows
 - electronic spreadsheets

- GST
- ledgers and financial statements
- profit and loss statements.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the financial management field of work and include access to:

- resources and documentation used in the workplace
- workplace policies and procedures
- workplace budgets and financial plans
- business technology
- case studies and, where available, real situations.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBHRM405 Support the recruitment, selection and induction of staff

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to execute tasks associated with the recruitment cycle and apply in-depth knowledge of the work of the organisation, and how recruitment and selection practices fit with other human resources functions.

This unit applies to individuals who support recruitment, selection and induction functions under the direction of a human resource manager.

No licensing, legislative, or certification requirements apply to this unit at the time of publication.

Unit Sector

Workforce Development – Human Resource Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Plan for recruitment	1.1 Obtain approval to fill position, clarify time lines and requirement for appointment 1.2 Assist in preparing job descriptions that accurately reflect the role requirements, according to organisational policies and procedures, legislation, codes, national standards and work health and safety (WHS) considerations 1.3 Consult with relevant personnel about job descriptions and

ELEMENT	PERFORMANCE CRITERIA
	<p>workforce strategy</p> <p>1.4 Assist in ensuring that job descriptions comply with legislative requirements and reflect the organisation's requirements for a diverse workforce</p> <p>1.5 Obtain approvals to advertise position</p>
2 Plan for selection	<p>2.1 Choose appropriate channels and technology to advertise vacancies and/or identify potential talent pool</p> <p>2.2 Advertise vacancies for staffing requirements according to organisational policies and procedures</p> <p>2.3 Consult with relevant personnel to convene selection panel and develop interview questions</p> <p>2.4 Assist in ensuring that interview questions comply with legislative requirements</p> <p>2.5 Assist in short-listing applicants</p> <p>2.6 Schedule interviews and advise relevant people of times, dates and venues</p>
3 Support selection process	<p>3.1 Participate in interview process and assess candidates against agreed selection criteria</p> <p>3.2 Discuss assessment with other selection panel members</p> <p>3.3 Correct biases and deviations from agreed procedures and negotiate for preferred candidate</p> <p>3.4 Contact referees for referee reports</p> <p>3.5 Prepare selection report and make recommendations to senior personnel for appointment</p> <p>3.6 Advise unsuccessful candidates of outcomes and respond to any queries</p> <p>3.7 Secure preferred candidate's agreement</p> <p>3.8 Complete necessary documentation according to organisational procedures, observing confidentiality and privacy requirements</p>
4 Induct successful candidate	<p>4.1 Provide successful candidate with employment contract and other documentation</p> <p>4.2 Advise manager and work team of new appointment</p> <p>4.3 Advise managers and staff of candidate's starting date and make necessary administrative arrangements for pay and employee record keeping</p> <p>4.4 Arrange successful candidate's induction according to</p>

ELEMENT	PERFORMANCE CRITERIA
	organisational policy

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.2, 1.4, 2.4, 2.5	<ul style="list-style-type: none"> Synthesises ideas, concepts and specific information from workplace and regulatory texts to inform development of workplace documents Evaluates information to make judgements
Writing	1.1, 1.2, 1.5, 2.2, 3.5, 3.6, 3.8, 4.2, 4.3	<ul style="list-style-type: none"> Produces a range of text types using specific information, workplace conventions and templates
Oral communication	1.1, 1.3, 1.5, 2.3, 2.5, 3.1-3.5, 3.7	<ul style="list-style-type: none"> Asks questions and listens carefully to gather, interpret or evaluate information Uses appropriate vocabulary to present ideas or persuasive arguments
Navigate the world of work	1.2, 1.4, 2.4, 3.3, 3.8, 4.1, 4.4	<ul style="list-style-type: none"> Applies workplace protocols, legislation or regulations relevant to own responsibilities
Interact with others	1.3, 2.3, 3.2, 3.3	<ul style="list-style-type: none"> Selects and uses appropriate conventions and protocols when communicating with personnel, candidates or referees Participates in conversations relevant to role responding, explaining, negotiating and persuading as required
Get the work done	2.1, 2.3, 2.6, 4.1, 4.3, 4.4	<ul style="list-style-type: none"> Selects and uses digital technology to access, enter, store and retrieve information in accordance with security requirements Takes responsibility for planning and implementing tasks for efficient and effective outcomes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBHRM405 Support the recruitment, selection and induction of staff	BSBHRM405A Support the recruitment, selection and induction of staff	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBHRM405 Support the recruitment, selection and induction of staff

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- prepare job descriptions
- use job descriptions to support sourcing, selecting and appointing suitable staff
- use different advertising channels to promote vacancies and/or establish a potential talent pool
- consult with managers to gain approvals
- develop selection criteria and interview questions in consultation with relevant personnel
- schedule interviews and advise relevant people of times, dates and venues
- participate in interviews and other selection techniques including assessing candidates against selection criteria to short list them
- obtain referees' reports
- prepare and distribute a selection report including feedback to give unsuccessful candidates
- advise unsuccessful candidates of the results
- secure preferred candidate's agreement and provide an employment contract
- advise other staff of the successful candidate and arrange induction.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify documentation required for recruitment, selection and induction
- explain human resources life cycle and the place of recruitment and selection
- identify legislation relevant to recruitment, selection and induction of staff
- describe channels and technology to advertise vacancies

- explain a range of interviewing techniques and other selection processes and their application.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the workforce development – human resource development field of work and include access to:

- workplace policies and procedures
- business technology
- position descriptions
- legislation, regulations, Codes and Standards relevant to staff recruitment, selection and induction
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBHRM506 Manage recruitment selection and induction processes

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to manage all aspects of recruitment selection and induction processes in accordance with organisational policies and procedures.

It applies to individuals or human resource personnel who take responsibility for managing aspects of selecting new staff and orientating those staff in their new positions. It is not assumed that the individual will be directly involved in the selection processes themselves, although this may well be the case.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Workforce Development – Human Resource Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Develop recruitment, selection and induction policies and procedures	1.1 Analyse strategic and operational plans and policies to identify relevant policies and objectives 1.2 Develop recruitment, selection and induction policies and procedures and supporting documents 1.3 Review options for technology to improve efficiency and effectiveness of recruitment and selection process

ELEMENT	PERFORMANCE CRITERIA
	<p>1.4 Obtain support for policies and procedures from senior managers</p> <p>1.5 Trial forms and documents supporting policies and procedures and make necessary adjustments</p> <p>1.6 Communicate policies and procedures to relevant staff and provide training if required</p>
2 Recruit and select staff	<p>2.1 Determine future human resource needs in collaboration with relevant managers and sections</p> <p>2.2 Ensure current position descriptors and person specifications for vacancies are used by managers and others involved in recruitment, selection and induction processes</p> <p>2.3 Provide access to training and other forms of support to all persons involved in recruitment and selection process</p> <p>2.4 Ensure advertising of vacant positions complies with organisational policy and legal requirements</p> <p>2.5 Utilise specialists where necessary</p> <p>2.6 Ensure selection procedures are in accordance with organisational policy and legal requirements</p> <p>2.7 Ensure processes for advising applicants of selection outcome are followed</p> <p>2.8 Ensure job offers and contracts of employment are executed promptly, and new appointments are provided with advice about salary, terms and conditions</p>
3 Manage staff induction	<p>3.1 Provide access to training and ongoing support for all persons engaged in staff induction</p> <p>3.2 Check induction processes are followed across the organisation</p> <p>3.3 Oversee management of probationary employees and provide them with feedback until their employment is confirmed or terminated</p> <p>3.4 Obtain feedback from participants and relevant managers on extent induction process is meeting its objectives</p> <p>3.5 Make refinements to induction policies and procedures</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 2.2, 2.4, 2.6, 2.7	<ul style="list-style-type: none"> Critically evaluates and applies content from a range of complex texts to determine legislative and business requirements
Writing	1.2-1.6, 2.1, 3.3-3.5	<ul style="list-style-type: none"> Demonstrates clear writing skills by selecting appropriate conventions and to express precise meaning relevant to context and audience
Oral Communication	1.4, 1.6, 2.1, 2.3, 3.3, 3.4	<ul style="list-style-type: none"> Draws on a repertoire of open questioning and active listening when seeking feedback from others Uses appropriate terminology and non-verbal features to present information and clarify understanding
Numeracy	2.8	<ul style="list-style-type: none"> Analyses numerical information to determine employees' remuneration packages Makes basic calculations to ensure work output is delivered in a timely manner
Navigate the world of work	1.1, 1.2, 1.5, 1.6, 2.4, 2.6	<ul style="list-style-type: none"> Understands and adheres to relevant organisational policies and procedures Develops or updates organisational policies to meet organisational objectives Considers own role in terms of its contribution to broader goals of work environment
Interact with others	1.4, 1.6, 2.1-2.3, 2.5, 2.7, 2.8, 3.1, 3.3, 3.4	<ul style="list-style-type: none"> Seeks expert advice and skills training where required Selects appropriate mode of communication for a specific purpose relevant to own role Uses effective communication skills to liaise with a range of people across the organisation
Get the work done	1.1-1.3, 1.5, 1.6, 2.1, 2.3, 2.7, 2.8, 3.1, 3.2, 3.3	<ul style="list-style-type: none"> Plans and implements tasks required to deliver timely outcomes, negotiating some key aspects with others Monitors implementation of plans and adjusts as necessary Considers whether and how often others should be involved, using consultative or collaborative processes as an integral part of the decision-making process Analyses outcomes of decisions to identify improvement opportunities Actively identifies systems, devices and applications with potential to meet current and future needs

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBHRM506 Manage recruitment selection and induction processes	BSBHRM506A Manage recruitment selection and induction processes	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBHRM506 Manage recruitment selection and induction processes

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- develop or critically analyse a policy and procedures framework for recruitment, selection and induction
- identify the need for recruitment
- prepare and oversee appropriate documentation required for recruitment
- select and advise job applicants appropriately
- manage the induction process
- comply with relevant legislation and organisational requirements.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe recruitment and selection methods, including assessment centres
- explain the concept of outsourcing
- describe the purpose of employee contracts and industrial relations
- summarise relevant legislation, regulations, standards and codes of practice that may affect recruitment, selection and induction
- explain why terms and conditions of employment are an important aspect of recruitment
- explain the relevance of psychometric and skills testing programs to recruitment.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the workforce development – human resource development field of work and include access to:

- an appropriate range of documentation and resources normally used in the workplace
- relevant organisational policies and procedures
- relevant legislation, regulations and codes of practice
- business technology.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBINM201 Process and maintain workplace information

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to collect, process and store, and maintain workplace information and systems. It also includes the maintenance of filing and records systems.

It applies to individuals who perform a range of routine tasks in the workplace, using a limited range of practical skills and fundamental knowledge of information and information systems in a defined context, under direct supervision or with limited individual responsibility.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Knowledge Management – Information Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Collect information	1.1 Collect information in a timely manner and ensure it is relevant to organisational needs 1.2 Use business equipment/technology available in the work area to effectively obtain information 1.3 Apply organisational requirements relating to security and confidentiality in handling information

ELEMENT	PERFORMANCE CRITERIA
2 Process workplace information	<p>2.1 Use business equipment/technology to process information in accordance with organisational requirements</p> <p>2.2 Process information in accordance with defined timeframes, guidelines and procedures</p> <p>2.3 Update, modify and file information in accordance with organisational requirements</p> <p>2.4 Collate and despatch information in accordance with specified timeframes and organisational requirements</p>
3 Maintain information systems	<p>3.1 Maintain information and filing systems in accordance with organisational requirements</p> <p>3.2 Identify, remove and/or relocate inactive or dead files in accordance with organisational requirements</p> <p>3.3 Establish and assemble new files in accordance with organisational requirements</p> <p>3.4 Update reference and index systems in accordance with organisational requirements</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.1-2.4, 3.1-3.4	<ul style="list-style-type: none"> Recognises and interprets textual information to complete tasks according to organisational requirements
Writing	1.3, 2.1-2.4, 3.4	<ul style="list-style-type: none"> Records simple and routine content using an established format to organise information
Oral Communication	1.1, 1.2	<ul style="list-style-type: none"> Uses listening and questioning skills to clarify and adhere to requirements
Numeracy	2.2, 2.4, 3.4	<ul style="list-style-type: none"> Comprehends basic mathematical measurements relating to times and number sequences
Navigate the world of work	1.3, 2.1, 2.3, 2.4, 3.1-3.4	<ul style="list-style-type: none"> Recognises organisational procedures and understands relevance of legislative requirements
Get the work	1.1-1.3, 2.1, 2.2, 2.4,	<ul style="list-style-type: none"> Follows clearly defined instructions and monitors own

done	3.1-3.3	progress to achieve timelines <ul style="list-style-type: none"> • Solves problems directly related to tasks, and makes low-impact decisions • Uses digital technologies following instructions regarding data entry and retrieval
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBINM201 Process and maintain workplace information	BSBINM201A Process and maintain workplace information	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBINM201 Process and maintain workplace information

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- collect and process workplace information according to organisational policies and procedures and related regulatory requirements
- record and document information accurately within expected timeframes
- store, classify and maintain documents and records correctly.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify key provisions of relevant legislation, regulations, standards and codes of practice that may affect information management
- outline organisational policies and procedures relating to collecting and processing workplace information
- identify and describe organisational recordkeeping/filing systems and security procedures
- describe a range of filing systems including paper-based and software-based.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the knowledge management – information management field of work and include access to:

- office equipment and resources
- examples of workplace information systems.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBINM401 Implement workplace information system

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to implement and review the workplace information system. It involves the identification, acquisition, initial analysis and use of appropriate information which plays a significant part in the organisation's effectiveness.

It applies to individuals whose work will normally be carried out within routine and non-routine methods and procedures which require planning and evaluation, leadership and guidance of others, and some discretion and judgement.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Knowledge Management – Information Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Identify and source information needs	1.1 Determine and locate information required by teams 1.2 Acquire and review information held by the organisation to determine suitability, accessibility, currency and reliability according to organisational policies
2 Collect, analyse and report information	2.1 Collect information, which is adequate and relevant to the needs of teams, in a timely manner

ELEMENT	PERFORMANCE CRITERIA
	<p>2.2 Ensure information is in a format suitable for analysis, interpretation and dissemination</p> <p>2.3 Analyse information to identify and report relevant trends and developments in terms of the needs for which it was acquired</p>
3 Implement information systems	<p>3.1 Implement management information systems effectively to store, retrieve and regularly review data for decision making purposes</p> <p>3.2 Use technology available in the work area to manage information effectively</p> <p>3.3 Submit recommendations for improving the information system to designated persons and/or groups</p>
4 Prepare for information system changes	<p>4.1 Collect information about information system future needs in consultation with colleagues, including those who have a specialist role in resource management</p> <p>4.2 Ensure estimates of information system future needs reflect the organisation's business plans, and customer and supplier requirements</p> <p>4.3 Support proposals to secure resources by clearly presenting submissions that describe realistic options, benefits, costs and outcomes</p> <p>4.4 Prepare team members to work with new technology and information system changes</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 4.4	<ul style="list-style-type: none"> Critically analyses complex documentation from a variety of sources and consolidates information relating to specific criteria to determine requirements
Writing	1.2, 2.1, 2.3, 3.1, 3.3, 4.1, 4.2, 4.3, 4.4	<ul style="list-style-type: none"> Develops material for a specific audience using clear and detailed language in order to convey explicit information, requirements and recommendations
Oral	1.1, 3.3, 4.1, 4.3, 4.4	<ul style="list-style-type: none"> Uses active listening and questioning and reading of verbal and non-verbal signals to convey and clarify

Communication		information and to confirm understanding
Numeracy	4.1-4.3	<ul style="list-style-type: none"> Selects from and uses a variety of developing mathematical and problem solving strategies to ensure estimates of information reflect the business plan and staff requirements
Navigate the world of work	1.2	<ul style="list-style-type: none"> Takes responsibility for following policies, procedures and legislative requirements and identifies organisational implications of new legislation or regulation
Interact with others	1.1, 3.3, 4.1, 4.3, 4.4	<ul style="list-style-type: none"> Selects and uses appropriate conventions and protocols when communicating with clients and co-workers in a range of work contexts Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met
Get the work done	1.1, 1.2, 2.1, 2.3, 3.1, 3.2, 4.1, 4.2	<ul style="list-style-type: none"> Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes Contributes to continuous improvement of current work practices by applying basic principles of analytical thinking Uses familiar digital technologies and systems to access, enter, present and communicate data and information

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBINM401 Implement workplace information system	BSBINM401A Implement workplace information system	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBINM401 Implement workplace information system

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- identify, source and analyse information to determine
 - information system needs
 - whether it is fit for purpose
 - trends and developments
- implement and review the workplace information system
- review a workplace information system and prepare and present a submission recommending improvements.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify the information systems that are, or should be, available in the workplace
- explain the information management systems and technology typically associated with the workplace including:
 - budgets and financial management systems
 - customer information software or records
 - databases
 - personal digital assistant (PDA)
 - product and service information
 - project management software
 - record management systems
 - spreadsheets.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the knowledge management – information management field of work and include access to:

- business technology
- a workplace information system
- workplace policies and procedures.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBITU203 Communicate electronically

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to send, receive and manage electronic mail (email), as well as collaborate online using chat rooms, intranets and instant messaging.

It applies to individuals who use business technology to perform a range of routine tasks to communicate with co-workers, customers or others. The individual will use a limited range of practical skills and fundamental knowledge in a defined context under direct supervision or with limited individual responsibility.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Information and Communications Technology – IT Use

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Implement procedures to send and receive electronic mail	1.1 Login to software for sending and receiving email in accordance with organisational requirements 1.2 Check outgoing email for accuracy and ensure any required attachments are prepared, in accordance with organisational and service provider requirements 1.3 Identify urgent, confidential, personal, suspicious or potentially dangerous email and take appropriate action

ELEMENT	PERFORMANCE CRITERIA
	1.4 Deal with returned email in accordance with organisational policies and procedures
2. Manage electronic mail	<p>2.1 Set security levels and/or filters for incoming email in accordance with organisational requirements</p> <p>2.2 Create and maintain individual mailboxes in accordance with organisational requirements</p> <p>2.3 Store email and/or attachments in accordance with organisational requirements</p> <p>2.4 Empty inboxes and archive or permanently delete in accordance with organisational requirements</p> <p>2.5 Prepare and maintain electronic mailing lists in accordance with organisational requirements</p>
3. Collaborate online	<p>3.1 Identify software to be used in collaboration</p> <p>3.2 Ensure online collaboration is undertaken in accordance with organisational policy, procedures and net etiquette (netiquette)</p> <p>3.3 Respond to posts or communications in accordance with agreed parameters, organisational requirements and netiquette</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.4, 2.1-2.5, 3.2, 3.3	<ul style="list-style-type: none"> Recognises textual information within different materials and interprets information to determine requirements as well as confirming accuracy of content
Writing	1.1, 2.2, 2.5, 3.2, 3.3	<ul style="list-style-type: none"> Records key information relevant to requirements and prepares simple correspondence using basic punctuation, text and correct spelling
Oral Communication	1.4	<ul style="list-style-type: none"> Obtains information through listening and questioning and uses clear and appropriate language suitable to audience
Navigate the world of work	1.1, 1.2, 1.4, 2.1-2.5, 3.2, 3.3	<ul style="list-style-type: none"> Recognises and follows explicit and implicit protocols and meets expectations associated with own role

Get the work done	1.3	<ul style="list-style-type: none"> Recognises and responds to routine problems in context of own work
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Range of Conditions

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBITU203 Communicate electronically	BSBITU203A Communicate electronically	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBITU203 Communicate electronically

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- follow organisational and service provider requirements when communicating electronically
- follow organisational policy and procedures when managing all aspects of electronic communication
- comply with netiquette
- collaborate in accordance with agreed parameters for electronic communication
- identify most appropriate software applications.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify different methods of electronic communication
- outline key provisions of relevant legislation that affect aspects of business operations
- outline relevant organisation policies and procedures.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the information and communications technology – IT use field of work and include access to:

- organisational policies and procedures
- relevant legislation
- relevant workplace documentation and resources
- industry software packages.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBITU304 Produce spreadsheets

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to develop spreadsheets through the use of spreadsheet software.

It applies to individuals employed in a range of environments who tend to be personally responsible for designing and working with spreadsheets under minimal supervision.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Information and Communications Technology – IT Use

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Select and prepare resources	1.1 Adhere to ergonomic, work organisation and occupational health and safety requirements 1.2 Use energy and resource conservation techniques to minimise wastage 1.3 Identify spreadsheet task requirements in relation to data entry, storage, output and presentation
2. Plan spreadsheet design	2.1 Ensure spreadsheet design suits purpose, audience and information requirements of task

ELEMENT	PERFORMANCE CRITERIA
	<p>2.2 Ensure spreadsheet design enhances readability and appearance, and meets organisational and task requirements for style and layout</p> <p>2.3 Use style sheets and automatic functions to ensure consistency of design and layout</p>
3. Create spreadsheet	<p>3.1 Ensure data is entered, checked and amended to maintain consistency of design and layout, in accordance with organisational and task requirements</p> <p>3.2 Format spreadsheet using software functions to adjust page and cell layout to meet information requirements, in accordance with organisational style and presentation requirements</p> <p>3.3 Ensure formulae are tested and used to confirm output meets task requirements, in consultation with appropriate personnel as required</p> <p>3.4 Use manuals, user documentation and online help to overcome problems with spreadsheet design and production</p>
4. Produce simple charts	<p>4.1 Select chart type and design that enables valid representation of numerical data, and meets organisational and task requirements</p> <p>4.2 Create charts using appropriate data range in spreadsheet</p> <p>4.3 Modify chart type and layout using formatting features</p>
5. Finalise spreadsheets	<p>5.1 Preview, adjust and print spreadsheet and any accompanying charts, in accordance with task requirements</p> <p>5.2 Ensure data input meets designated timelines and organisational requirements for speed and accuracy</p> <p>5.3 Name and store spreadsheet in accordance with organisational requirements and exit application without data loss/damage</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	2.2, 3.1-3.4, 5.1	<ul style="list-style-type: none"> Recognises and interprets numerical and textual information to determine organisational and task

		requirements
Writing	2.1, 3.1-3.3, 4.2, 4.3, 5.1-5.3	<ul style="list-style-type: none"> Inputs numerical and key reporting information when creating and finalising spreadsheets and uses format, layout, style guides and standard naming conventions to organise data according to purpose and audience
Oral Communication	3.3	<ul style="list-style-type: none"> Participates in exchange of information to determine whether formulae utilised produce result required
Numeracy	4.1, 4.2	<ul style="list-style-type: none"> Uses mathematical equations to create simple formulae and validate numerical data
Navigate the world of work	1.1-1.3, 2.1-2.3, 3.1-3.3, 4.1, 5.1-5.3	<ul style="list-style-type: none"> Recognises and follows explicit and implicit protocols and meets expectations associated with own role
Interact with others	3.3	<ul style="list-style-type: none"> Collaborates with others to achieve joint outcomes
Get the work done	2.1-2.3, 3.1-3.4, 4.1-4.3, 5.1-5.3	<ul style="list-style-type: none"> Uses advanced features within applications to address routine and complex work tasks

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBITU304 Produce spreadsheets	BSBITU304A Produce spreadsheets	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBITU304 Produce spreadsheets

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- design spreadsheets that address a range of data and organisational requirements
- use software functions, graphics and support materials to create spreadsheets
- apply knowledge of formatting requirements for workplace documents.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe formatting requirements of workplace documents
- identify organisational guidelines on spreadsheet design and use
- explain organisational requirements for ergonomic standards, work periods and breaks, and conservation techniques.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the information and communications technology – IT use field of work and include access to:

- industry software packages
- computer user information
- relevant legislation and codes of practice
- organisational policies and procedures
- relevant workplace documentation and resources.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBITU306 Design and produce business documents

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to design and produce various business documents and publications. It includes selecting and using a range of functions on a variety of computer applications.

It applies to individuals who possess fundamental skills in computer operations and keyboarding. They may exercise discretion and judgement using appropriate theoretical knowledge of document design and production to provide technical advice and support to a team.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Information and Communications Technology – IT Use

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Select and prepare resources	1.1 Select and use appropriate technology and software applications to produce required business documents 1.2 Select layout and style of publication according to information and organisational requirements 1.3 Ensure document design is consistent with company and/or client requirements, using basic design principles

ELEMENT	PERFORMANCE CRITERIA
	1.4 Discuss and clarify format and style with person requesting document/publication
2. Design document	2.1 Identify, open and generate files and records according to task and organisational requirements 2.2 Design document to ensure efficient entry of information and to maximise presentation and appearance of information 2.3 Use a range of functions to ensure consistency of design and layout 2.4 Operate input devices within designated requirements
3. Produce document	3.1 Complete document production within designated timelines according to organisational requirements 3.2 Check document produced to ensure it meets task requirements for style and layout 3.3 Store document appropriately and save document to avoid loss of data 3.4 Use manuals, training booklets and/or help-desks to overcome basic difficulties with document design and production
4. Finalise document	4.1 Proofread document for readability, accuracy and consistency of language, style and layout prior to final output 4.2 Make any modifications to document to meet requirements 4.3 Name and store document in accordance with organisational requirements and exit application without data loss/damage 4.4 Print and present document according to requirements

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	2.1, 2.2, 3.2, 3.4, 4.1	<ul style="list-style-type: none"> Recognises and interprets textual information from a range of sources to determine and adhere to requirements Applies strategies to self-correct and verify clarity and conformity of information

Writing	2.2, 2.3, 3.1, 4.2, 4.3	<ul style="list-style-type: none"> Develops documents using required format, accurate spelling and grammar and terminology specific to requirements Organises content to support purposes and audience of material, using clear and logical language
Oral Communication	1.4	<ul style="list-style-type: none"> Confirms requirements with relevant personnel using specific terminology and listening and questioning techniques
Navigate the world of work	1.2, 1.3, 2.1, 2.4, 3.1, 3.2, 4.2-4.4	<ul style="list-style-type: none"> Recognises and follows explicit and implicit protocols and meets expectations associated with own role
Interact with others	1.4	<ul style="list-style-type: none"> Selects and uses appropriate conventions and protocols when communicating in a range of familiar work contexts
Get the work done	1.1-1.3, 2.1-2.4, 3.1-3.4, 4.1-4.4	<ul style="list-style-type: none"> Uses basic features and functions within applications to access, store, organise data and perform routine work tasks

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBITU306 Design and produce business documents	BSBITU306A Design and produce business documents	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBITU306 Design and produce business documents

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- select appropriate technology and software for design and production of business documents
- adhere to organisational requirements when:
 - selecting layout and style
 - opening and generating files
 - producing documents within designated timelines
 - naming and storing documents
 - printing and presenting documents
- adhere to task requirements when producing documents including:
 - applying basic design principles
 - applying consistent formatting
 - using appropriate styles
 - using correct layouts
 - proofreading as required
- use appropriate data storage options
- apply knowledge of functions and features of contemporary computer applications
- print and present completed documents.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify appropriate technology for production requirements

- describe functions and features of contemporary computer applications
- outline organisational policies, plans and procedures
- list organisational requirements for document design e.g. style guide.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the information and communications technology – IT use field of work and include access to:

- office equipment and resources
- relevant software applications
- examples of style guides
- organisational procedures.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBITU401 Design and develop complex text documents

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to design and develop business documents using complex technical features of word processing software.

It applies to individuals who work in a range of business environments and have skills which may be applied in the provision of administrative support within an enterprise, or by technical/knowledge experts responsible for producing their own word processed documents.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Information and Communications Technology – IT Use

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to produce word processed documents	1.1 Use safe work practices to ensure ergonomic, work organisation, energy and resource conservation requirements are met 1.2 Identify document purpose, audience and presentation requirements, and clarify with relevant personnel as required 1.3 Identify organisational requirements for text-based business documents to ensure consistency of style and image 1.4 Evaluate complex technical functions of software for its

ELEMENT	PERFORMANCE CRITERIA
	<p>usefulness in fulfilling requirements of the task</p> <p>1.5 Match document requirements with software functions to provide efficient production of documents</p>
2. Design complex documents	<p>2.1 Design document structure and layout to suit purpose, audience and information requirements of task</p> <p>2.2 Design document to enhance readability and appearance, and to meet organisational and task requirements for style and layout</p> <p>2.3 Use complex software functions to enable efficient manipulation of information and other material, and ensure consistency of design and layout</p> <p>2.4 Use manuals, user documentation and online help to overcome problems with document design and production</p>
3. Add complex tables and other data	<p>3.1 Insert a standard table into document, changing cells to meet information requirements</p> <p>3.2 Format rows and columns as required</p> <p>3.3 Insert images and other data, formatting as required</p>
4. Produce documents	<p>4.1 Use complex operations to develop documents, and achieve required results</p> <p>4.2 Preview, adjust and print documents in accordance with organisational and task requirements</p> <p>4.3 Name and store documents in accordance with organisational requirements and exit application without information loss/damage</p> <p>4.4 Prepare documents within designated timelines and for speed and accuracy</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.3, 2.2, 2.4, 4.3, 4.4	<ul style="list-style-type: none"> Recognises and interprets textual information from a range of resources to determine and confirm requirements and to assist with document issues

Writing	2.1-2.4, 3.3, 4.2-4.4,	<ul style="list-style-type: none"> Develops material using required format and incorporating technical functions to meet business needs
Oral Communication	1.2	<ul style="list-style-type: none"> Uses specific and relevant language to confirm understanding of requirements and listens carefully to verbal instructions and discussions
Numeracy	1.4, 3.3	<ul style="list-style-type: none"> Recognises and inputs numerical information according to requirements
Navigate the world of work	1.1-1.3, 1.5, 2.1-2.3, 3.1-3.3, 4.1-4.4	<ul style="list-style-type: none"> Recognises and follows explicit and implicit protocols and meets expectations associated with own role
Interact with others	1.2	<ul style="list-style-type: none"> Collaborates with others to achieve joint outcomes
Get the work done	1.4, 1.5, 2.1-2.4, 3.1-3.3, 4.1-4.4	<ul style="list-style-type: none"> Applies formal processes when planning more complex/unfamiliar tasks, producing plans with logically sequenced steps Uses advanced features within applications to access, store, organise data and perform routine and complex work tasks

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBITU401 Design and develop complex text documents	BSBITU401A Design and develop complex text documents	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBITU401 Design and develop complex text documents

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- follow organisational and safe work practices including:
 - ergonomic requirements
 - energy and resource conservation techniques
- adhere to organisational requirements for:
 - producing documents within designated timelines
 - naming and storing documents
- adhere to task requirements when producing complex documents including:
 - using appropriate styles and layout consistently throughout the document
 - using correct formatting and document structure
- resolve issues by referring to user documentation and online help
- use appropriate data storage options
- apply knowledge of complex operation and functions of industry software applications
- communicate with relevant personal.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline various formatting styles and their effect on formatting, readability and appearance of documents
- explain organisational requirements for ergonomics, work periods and breaks, and conservation techniques
- describe purpose and contents of an organisational style guide.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the information and communications technology – IT use field of work and include access to:

- organisational policies and procedures
- relevant workplace documentation and resources
- industry software packages and user instructions.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBITU404 Produce complex desktop published documents

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to design and produce complex desktop published documents.

This unit applies to individuals employed in a range of work environments who require well-developed skills in desktop publishing. They may be individuals providing administrative support within an enterprise, or others responsible for production of their own documents.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Information and Communications Technology – IT Use

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to produce desktop published documents	1.1 Use safe work practices including addressing ergonomic requirements and using work organisation strategies 1.2 Use energy and resource conservation techniques 1.3 Identify document purpose, audience, presentation and final output requirements, and clarify with relevant personnel as required 1.4 Identify organisational and task requirements for desktop

ELEMENT	PERFORMANCE CRITERIA
	published documents to ensure consistency of style and image
2. Design desktop published documents	<p>2.1 Design document to enhance readability and appearance, according to organisational and task requirements</p> <p>2.2 Determine document type and assess production and design requirements</p> <p>2.3 Set up and use master pages, templates and styles to ensure consistency of design and layout</p> <p>2.4 Set up colour palettes according to organisational and task requirements</p>
3. Create desktop published documents	<p>3.1 Prepare, format and enter required text</p> <p>3.2 Import text from other applications and resolve any formatting issues</p> <p>3.3 Scan or import graphics from other applications and resolve any formatting issues</p> <p>3.4 Use complex software functions to arrange text and graphics on page, according to organisational and task requirements</p>
4. Finalise desktop published documents	<p>4.1 Ensure pages and combined graphics and text are composed correctly, to suit organisational and task requirements</p> <p>4.2 Check numerical sequencing and layout of document is correct, to meet binding and finishing requirements</p> <p>4.3 Incorporate bleed allowance in margins and borders</p>
5. Produce desktop published documents	<p>5.1 Review text for possible errors and omissions, and resolve any issues</p> <p>5.2 Produce completed document in line with required final output</p> <p>5.3 Name and store text documents, in accordance with organisational requirements and exit application without information loss/damage</p> <p>5.4 Prepare text documents within designated timelines and organisational requirements for speed and accuracy</p> <p>5.5 Use manuals, user documentation and online help to overcome problems with document design and production</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.3, 1.4, 2.1, 2.2, 3.1-3.4, 4.1, 4.2, 4.5, 5.1, 5.2	<ul style="list-style-type: none"> Evaluates and integrates information and ideas to construct meaning, to design, set up and create a published document, and review final document for possible errors and other issues
Writing	2.1, 2.2, 3.1-3.4, 5.1-5.5	<ul style="list-style-type: none"> Communicates relationships between ideas and information in a style appropriate to audience and purpose in accordance with organisational and task requirements
Oral Communication	1.3, 1.4	<ul style="list-style-type: none"> Uses everyday language and listens to short specific instructions to clarify document purpose, audience and presentation requirements with appropriate personnel
Numeracy	4.2, 4.3	<ul style="list-style-type: none"> Uses basic numeracy calculations to deal with margin bleeding and arranges sequential numerical information during process of finalising document.
Navigate the world of work	1.1, 1.3, 1.4, 2.1-2.4, 3.4, 4.1, 4.2, 5.2-5.4	<ul style="list-style-type: none"> Recognises and follows explicit and implicit protocols and meets expectations associated with own role
Interact with others	1.3	<ul style="list-style-type: none"> Collaborates with others to achieve joint outcomes
Get the work done	2.1, 2.3, 2.4, 3.1-3.4, 4.1-4.3, 5.1-5.5	<ul style="list-style-type: none"> Recognises and responds to routine problems in context of own work Uses advanced features within applications to access, store, organise data and perform routine and complex work tasks

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBITU404 Produce complex desktop published documents	BSBITU404A Produce complex desktop published documents	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBITU404 Produce complex desktop published documents

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- follow organisational and safe work practices including:
 - ergonomic requirements
 - energy and resource conservation techniques
- adhere to organisational requirements for:
 - ensuring consistency of style and image
 - logically sequencing data
 - producing documents within designated timelines
 - naming and storing documents
- adhere to task requirements when producing documents including:
 - applying consistent formatting
 - using appropriate templates and master pages
 - using appropriate colour palettes
 - using correct layouts
 - providing bleed allowance
 - meeting binding and finishing requirements
- resolve any issues including:
 - formatting issues
 - errors and omissions
 - problems with design and production.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline various formatting styles and their effect on formatting, readability and appearance of documents
- explain organisational requirements for ergonomics, work periods and breaks, and energy and resource conservation techniques
- identify purposes, uses and functions of desktop publishing software
- describe purpose and contents of an organisational style guide.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the information and communications technology – IT use field of work and include access to:

- organisational policies and procedures
- relevant workplace documentation and resources
- industry software packages and user instructions.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBLDR403 Lead team effectiveness

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit defines skills, knowledge and outcomes required to plan and supervise the performance of the team and develop team cohesion.

It applies team leaders, supervisors and new emerging managers who have an important leadership role in the development of efficient and effective work teams.

Leaders at this level also provide leadership for the team and bridge the gap between the management of the organisation and the team members. As such they must 'manage up' as well as manage their team/s.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership - Leadership

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan to achieve team outcomes	1.1 Lead the team to identify, establish and document team purpose, roles, responsibilities, goals, plans and objectives in consultation with team members 1.2 Engage team members to incorporate innovation and

ELEMENT	PERFORMANCE CRITERIA
	productivity measures in work plans 1.3 Lead and support team members in meeting expected outcomes
2. Lead team to develop cohesion	2.1 Provide opportunities for input of team members into planning, decision making and operational aspects of work team 2.2 Encourage and support team members to take responsibility for own work and to assist each other in undertaking required roles and responsibilities 2.3 Provide feedback to team members to encourage, value and reward individual and team efforts and contributions 2.4 Recognise and address issues, concerns and problems identified by team members or refer to relevant persons as required 2.5 Model expected behaviours and approaches
3. Participate in and facilitate work team	3.1 Actively encourage team members to participate in and take responsibility for team activities and communication processes 3.2 Give the team support to identify and resolve problems which impede its performance 3.3 Ensure own contribution to work team serves as a role model for others and enhances the organisation's image within the work team, the organisation and with clients/customers
4. Liaise with management	4.1 Maintain open communication with line manager/management at all times 4.2 Communicate information from line manager/management to the team 4.3 Communicate unresolved issues, concerns and problems raised by the team/team members to line manager/management and ensure follow-up action is taken 4.4 Communicate unresolved issues, concerns and problems related to the team/team members raised by line managers/management to the team and ensure follow-up to action is taken

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance	Description
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	Criteria	
Writing	1.1, 4.2	<ul style="list-style-type: none"> Prepares workplace plans that communicate intent and elicits feedback clearly and effectively
Oral communication	1.1, 1.3, 2.2, 2.3, 3.1, 3.2, 4.2-4.4	<ul style="list-style-type: none"> Engages in discussions or provides information using structure and language appropriate to the audience and situation
Interact with others	1.1-1.3, 2.1-2.5, 3.1, 3.3, 4.1	<ul style="list-style-type: none"> Selects and uses appropriate conventions and protocols when communicating with team members Adapts personal communication style to model required behaviours, build trust and positive working relationships and to show respect for the opinions and values of others Plays a lead role in situations requiring effective collaboration, demonstrating conflict resolution skills and ability to engage and motivate others
Get the work done	1.1-1.3, 3.2	<ul style="list-style-type: none"> Develops, implements and monitors plans and processes to ensure team engagement and effectiveness Uses formal analytical thinking techniques to identify issues and generate possible solutions, seeking input from others as required

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBLDR403 Lead team effectiveness	BSBWOR402A Promote team effectiveness	Updated to meet Standards for Training Packages Title change Minor edits to clarify intent of performance criteria	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBLDR403 Lead team effectiveness

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- apply knowledge of organisational goals, objectives and plans
- develop a team work plan including documentation of how it was generated and how it will be monitored
- identify and incorporate innovation and productivity measures into a team work plan
- communicate with team members and management to identify and establish the team purpose, roles, responsibilities, goals plans and objectives and resolve problems
- use techniques to consult, encourage, support and provide feedback to team members
- model team leadership behaviours and approaches
- liaise with management to develop the teamwork plan, resolve issues and ensure follow-up action is taken.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must explain principles and techniques associated with:

- delegation and work allocation
- goal setting
- group dynamics and processes
- individual behaviour and difference
- leadership styles
- motivation
- negotiation
- problem solving
- planning

- workplace innovation
- workplace productivity.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership field of work and include access to:

- information about the organisation, including organisational structure, goals, objectives and plans
- case studies, and where possible, real situations
- workplace equipment and resources
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBLIB502 Manage the development of collections

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to determine collection needs to accession and de-accession collection material for galleries and collection bodies.

It applies to individuals who possess specialised knowledge, have a degree of autonomy and are responsible for managing all aspects of collections development.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Library – Collection Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Determine collection needs	1.1 Review collection material against organisational objectives and collection requirements 1.2 Determine priorities in consultation with key stakeholders
2 Assess collection material to be accessioned	2.1 Use options to identify material that could be accessioned to meet collection needs 2.2 Assess key internal and external factors that impact options 2.3 Obtain expert advice on material and its relevance to collections

ELEMENT	PERFORMANCE CRITERIA
	<p>2.4 Assess potential material for significance and relevance to collections according to organisational collection management policies</p> <p>2.5 Examine records to establish provenance and confirm significance</p> <p>2.6 Identify resources required for accessioning collection material</p> <p>2.7 Develop recommendations for accessioning collection material according to collection needs</p>
3 Coordinate accessioning of collection material	<p>3.1 Seek approval for accessioning collection material</p> <p>3.2 Establish clear conditions for accessioning collection material according to organisational procedures and guidelines</p> <p>3.3 Organise appropriate resources to accession collection material according to approval and conditions</p> <p>3.4 Comply with legal, ethical and financial requirements and cultural protocols in the accession process</p> <p>3.5 Negotiate terms and organise transfer of rights according to organisational procedures</p> <p>3.6 Document agreements and terms according to organisational procedures and guidelines</p>
4 Coordinate de-accessioning of collection material	<p>4.1 Identify material to be de-accessioned from collections</p> <p>4.2 Consult with experts on the material to determine impact of de-accessioning on the collection</p> <p>4.3 Select options to de-accession material</p> <p>4.4 Develop and implement recommendations for de-accessioning collection material according to organisational policies and strategies</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 2.1, 2.2, 2.4-2.6,	<ul style="list-style-type: none"> Analyses and compares collection material and documents to determine requirements

	3.2, 3.4, 3.6, 4.1	<ul style="list-style-type: none"> Checks prepared documentation for compliance with terms, conditions and procedures for collection management
Writing	1.2, 2.3, 3.1-3.3, 3.5, 4.2	<ul style="list-style-type: none"> Prepares specific information conveying an understanding of outcomes and alternatives, and uses terminology appropriate to present to relevant personnel Ensures produced material reflects cultural protocols and legal, ethical and financial requirements Uses specific and appropriate language to develop accessioning and de-accessioning agreements and recommendations
Oral Communication	1.2, 2.3, 2.7. 3.1, 3.5. 3.6, 4.2	<ul style="list-style-type: none"> Initiates and participates in verbal exchanges of ideas and elicits views and opinions of others by listening and questioning Uses a range of persuasive responses appropriate to audience and environment, and makes comparisons which show an understanding of requirements
Numeracy	3.4	<ul style="list-style-type: none"> Interprets numerical information for compliance with financial requirements
Navigate the world of work	1.1, 2.4, 3.2-3.6, 4.4	<ul style="list-style-type: none"> Takes full responsibility for following policies, procedures and legislative requirements Takes responsibility for managing organisational policies, procedures, and protocols relevant to own role
Interact with others	1.2, 2.3, 2.7. 3.1, 3.5. 3.6, 4.2	<ul style="list-style-type: none"> Uses collaborative techniques to engage stakeholders and colleagues in consultations and negotiations
Get the work done	1.1, 1.2, 2.1-2.7, 3.1-3.3, 4.1-4.4	<ul style="list-style-type: none"> Accepts responsibility for planning and sequencing complex tasks and workload, negotiating key aspects with others taking into account capabilities, efficiencies and effectiveness Systematically gathers and analyses all relevant information and evaluates options to make decisions about accessioning and de-accessioning collection material Uses problem-solving techniques to identify and analyse issues Uses main features and functions of digital tools to complete work tasks and access information

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBLIB502 Manage the development of collections	CULCNM503A Manage the development of collections	Updated to meet Standards for Training Packages Unit moved from Library, Information and Cultural Services Training Package to Business Services Training Package.	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBLIB502 Manage the development of collections

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 2.0.

Performance Evidence

Evidence of the ability to:

- make and justify decisions regarding accessioning and de-accessioning collection material to meet collection needs
- apply organisational procedures and guidelines to manage development of collections
- negotiate and document processes and agreements in relation to collection material.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify and interpret organisational procedures and guidelines regarding managing specific items and whole collections
- identify and explain the purpose of subject matter expertise, including curatorial and conservation
- locate and interpret sources for accessioning and de-accessioning options
- interpret and explain information regarding comparable collections and their importance
- describe legal, ethical and financial requirements for accessioning and de-accessioning
- locate and interpret cultural protocols for collections development and management that impact accessioning and de-accessioning of cultural material, including those for Aboriginal or Torres Strait Islander material
- explain security issues associated with collection material.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Library – Collection Management field of work and include access to:

- an established or proposed collection as basis of decision-making
- organisational objectives, procedures and guidelines
- relevant personnel to reflect necessary communication and negotiation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBLIB602 Develop and monitor procedures for the movement and storage of collection material

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to develop and monitor procedures for the movement and storage of collection material.

It applies to individuals who work autonomously within established guidelines, and often as a team leader.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Library – Collection Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Establish procedures for handling, moving and storing collection material	1.1 Assess key information about collection material 1.2 Assess internal and external factors that impact moving and storing collection material 1.3 Integrate current industry best practice in procedure development 1.4 Locate and consult with stakeholders on complex matters of movement and storage

ELEMENT	PERFORMANCE CRITERIA
	<p>1.5 Identify and address legal, insurance and other administrative requirements impacting handling, moving and storing collection material</p> <p>1.6 Identify and assess work health and safety issues and legislative requirements</p> <p>1.7 Document procedures for moving and storing collection material</p>
2 Manage operations	<p>2.1 Organise and monitor movement and storage arrangements according to agreed procedures and work requirements</p> <p>2.2 Check movement and storage of collection material against schedules and allocated budgets, and take action to address problems</p> <p>2.3 Evaluate information records to ensure completeness, currency, accuracy and compliance with legal, ethical and cultural constraints</p> <p>2.4 Make adjustments and enhancements to record-keeping formats and systems based on ongoing review of records and feedback from users</p>
3 Maintain procedures for moving and storing collection material	<p>3.1 Consult with colleagues to obtain feedback on movement and storage procedures</p> <p>3.2 Update procedures based on feedback and industry practice</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.3, 1.5, 1.6, 2.2-2.4	<ul style="list-style-type: none"> Analyses and interprets a wide range of information for incorporation into organisational practices and procedures
Writing	1.3, 1.5, 1.7, 2.4, 3.2	<ul style="list-style-type: none"> Develops and updates detailed procedures which clearly and concisely define organisational systems and practices Develops documents using language understood by target audience

Oral Communication	1.4, 1.5, 2.4, 3.1	<ul style="list-style-type: none"> Elicits views and opinions of others and obtains information by listening and questioning Participates in a verbal exchange of ideas/solutions and uses inclusive and collaborative techniques to clarify and present information according to requirements and audience
Numeracy	2.2-2.4	<ul style="list-style-type: none"> Interprets and uses budgets to meet required outcomes Works effectively with numerical recordkeeping systems to manage and monitor storage collection materials and operations
Navigate the world of work	1.3, 1.5-1.7, 2.1-2.3, 3.1, 3.2	<ul style="list-style-type: none"> Works autonomously making high level decisions to achieve and improve organisational goals Develops and implements strategies to ensure organisational policies, procedures, timelines and regulatory requirements are met Monitors and reviews organisation's policies, procedures and adherence to legislative requirements to implement and manage change
Interact with others	1.4, 1.5, 2.4, 3.1	<ul style="list-style-type: none"> Uses a variety of strategies to build and maintain effective working relationships
Get the work done	1.1-1.7, 2.1-2.4, 3.1, 3.2	<ul style="list-style-type: none"> Sequences and schedules complex activities, monitors implementation and manages relevant communication Plans, organises, implements and reviews systems and processes to manage compliance within relevant regulations and legislation Accepts responsibility for planning, prioritising and sequencing complex tasks and workload Gathers and analyses data and seeks feedback to improve plans and processes Evaluates effectiveness of systems and processes to inform decisions on how to implement improvements Uses problem-solving techniques to identify and analyse issues Uses main features and functions of digital tools to complete work tasks

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBLIB602 Develop and monitor procedures for the movement and storage of collection material	CULCNM602A Develop and monitor procedures for the movement and storage of collection material	Updated to meet Standards for Training Packages Unit moved from Library, Information and Cultural Services Training Package to Business Services Training Package.	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBLIB602 Develop and monitor procedures for the movement and storage of collection material

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 2.0.

Performance Evidence

Evidence of the ability to:

- develop procedures for moving and storing collection material
- implement and monitor procedures for moving and storing collection material
- integrate into procedures, internal, external and technical issues that impact movement and storage of collection material.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- assess copyright, moral rights and intellectual property legislation and issues that impact moving and storing collection material
- identify and interpret cultural protocols that affect movement and storage of material, including Aboriginal or Torres Strait Islander material
- outline legal and administrative requirements for moving and storing collection material
- interpret procedures and practices for protection, transportation, storage and security of collection material
- explain safety legislation and requirements that impact moving and storing collection material
- describe technical and conservation issues associated with moving and storing collection material.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Library – Collection Management field of work and include access to:

- relevant policies and procedures manuals
- a collection, for which procedures can be planned.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBMGT402 Implement operational plan

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to implement the operational plan by monitoring and adjusting operational performance, planning and acquiring resources and providing reports on performance as required.

It applies to individuals who plan activities to achieve the measurable, stated objectives of the team and the organisation. At this level work will normally be carried out within routine and non-routine methods and procedures which require planning, evaluation, leadership and guidance of others.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Implement operational plan	1.1 Collate, analyse and organise details of resource requirements in consultation with relevant personnel, colleagues and specialist resource managers 1.2 Implement operational plans to contribute to the achievement of organisation's performance/business plan 1.3 Identify and use key performance indicators (KPIs) to monitor

ELEMENT	PERFORMANCE CRITERIA
	<p>operational performance</p> <p>1.4 Manage contingencies by adjusting the implementation of the operational plan in consultation with others</p> <p>1.5 Provide assistance in the development and presentation of proposals for resource requirements in line with operational planning processes</p>
2. Implement resource acquisition	<p>2.1 Recruit and induct employees within organisation's policies, practices and procedures</p> <p>2.2 Implement plans for acquisition of physical resources and services within organisation's policies, practices and procedures and in consultation with relevant personnel</p>
3. Monitor operational performance	<p>3.1 Monitor performance systems and processes to assess progress in achieving profit/productivity plans and targets</p> <p>3.2 Analyse and use budget and actual financial information to monitor profit/productivity performance</p> <p>3.3 Identify unsatisfactory performance and take prompt action to rectify the situation according to organisational policies</p> <p>3.4 Provide mentoring, coaching and supervision to support individuals and teams to use resources effectively, economically and safely</p> <p>3.5 Present recommendations for variation to operational plans to the designated persons/groups and gain approval</p> <p>3.6 Implement systems, procedures and records associated with performance in accordance with organisation's requirements</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Learning	3.4	<ul style="list-style-type: none"> Actively reinforces learning by applying new knowledge and skills in mentoring, coaching and supervising others
Reading	1.1-1.5, 2.1, 2.2, 3.1, 3.2, 3.6	<ul style="list-style-type: none"> Identifies, interprets, analyses and reviews textual information related to the operational plan and

		monitoring of operational performance
Writing	1.1-1.5, 2.1, 2.2, 3.2-3.6	<ul style="list-style-type: none"> Communicates relationships between ideas and information, matching style of writing to purpose and audience Researches, plans and prepares workplace documentation for relevant stakeholders using organisational formats
Oral Communication	1.1, 1.4, 1.5, 2.1, 2.2, 3.3, 3.4, 3.5	<ul style="list-style-type: none"> Participates in a variety of spoken exchanges with a range of audiences varying structure and language to suit the audience
Numeracy	1.1, 1.2, 1.3, 1.4, 1.5, 2.2, 3.1, 3.2, 3.3	<ul style="list-style-type: none"> Selects and uses familiar mathematical techniques to organise timely supply of adequate resources for the operational plan and to use budgetary information to monitor performance
Navigate the world of work	1.5, 2.1, 2.2, 3.3, 3.4, 3.6	<ul style="list-style-type: none"> Monitors adherence to organisational policies and procedures and considers own role in terms of its contribution to broader goals of the work environment
Interact with others	1.1, 1.4, 1.5, 2.1, 2.2, 3.3, 3.4, 3.5	<ul style="list-style-type: none"> Selects and uses appropriate conventions and protocols when communicating with diverse individuals to build rapport, seek or present information Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group communication, influencing direction and taking a leadership role on occasion
Get the work done	1.1, 1.2, 1.3, 1.4, 1.5, 2.2, 3.1, 3.2, 3.3, 3.6	<ul style="list-style-type: none"> Takes responsibility for planning, organising, implementing and monitoring tasks required to achieve required outcomes Uses systematic, analytical processes in complex, non-routine situations, setting goals, gathering relevant information and identifying and evaluating options against agreed criteria Evaluates effectiveness of decisions in terms of how well they met stated goals Recognises and addresses an increasing range of familiar problems by implementing contingency plans

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBMGT402 Implement	BSBMGT402A Implement	Updated to meet Standards for	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
operational plan	operational plan	Training Packages. Edits to clarify intent of Performance Criteria.	

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBMGT402 Implement operational plan

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- interact with a range of people/groups to identify resource requirements, performance objectives, systems, procedures and records relating to the operational plan
- vary the operational plan and gain approval to deal with contingencies
- monitor operational performance against the performance objectives and budgets and take action to rectify unsatisfactory performance
- plan and acquire physical and human resources using organisation's systems and procedures
- manage and support personnel to achieve performance objectives. including inducting new employees and providing mentoring and coaching
- present information and recommendations to support implementation and variation of the operational plan
- document and provide reports on performance as required by the organisation.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe performance monitoring systems and processes
- describe methods for problem solving
- explain how organisational policies and procedures relate to the operational plan.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership field of work and include access to:

- organisational operational plans, policies and procedures
- workplace documentation and resources including budgets, physical and human resource procurement documentation, employee induction and performance monitoring procedures
- case studies and, where possible, real situations.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBMGT616 Develop and implement strategic plans

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to establish the strategic direction of the organisation, sustain competitive advantage and enhance competitiveness. It covers analysis and interpretation of relevant markets, capability assessment of the organisation and analysis of the organisation's existing and potential competitors and allies. It also covers implementation of the strategic plan and developing specific actions and initiatives that will be undertaken by people working in various roles.

It applies to individuals working in senior roles in the organisation who have responsibility for ensuring that the organisation is positioned to ensure its long-term viability and success.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Confirm organisational vision and mission	1.1 Check with stakeholders that organisational vision and mission are still held to be current and are supported 1.2 Make any changes or refinements to vision or mission statement as required 1.3 Review or develop organisational values to support the vision

ELEMENT	PERFORMANCE CRITERIA
	<p>and mission statement</p> <p>1.4 Gain support for strategic planning process from all relevant stakeholders</p>
2. Analyse the internal and external environment	<p>2.1 Determine information requirements and undertake or commission research to deliver relevant information</p> <p>2.2 Analyse political, economic, social, and technological developments in a global context</p> <p>2.3 Seek advice from appropriate experts wherever necessary</p> <p>2.4 Identify and consider strengths and weaknesses of existing and potential competitors and allies</p> <p>2.5 Analyse organisation's strengths, weaknesses, opportunities and threats</p> <p>2.6 Consider cooperative ventures that are supported by risk and cost benefit analyses, are consistent with the organisational vision, mission and values and provide for due diligence</p> <p>2.7 Check that analysis of internal and external environment is consistent with the perspectives of other informed people</p>
3. Write strategic plan	<p>3.1 Document relevant research and background for inclusion in the strategic plan</p> <p>3.2 Formulate strategic objectives and strategies needed for the future</p> <p>3.3 Detail each strategy with an assigned priority, a timeframe, responsible parties and measurable performance indicators</p> <p>3.4 Circulate strategic plan for comment, support and endorsement</p>
4. Implement strategic plan	<p>4.1 Communicate strategic plan to all relevant parties</p> <p>4.2 Brief people with a specific role in relation to strategies</p> <p>4.3 Use performance indicators to monitor progress in implementing plan</p> <p>4.4 Make necessary refinements to plan</p> <p>4.5 Evaluate achievement of objectives at agreed milestones</p> <p>4.6 Review effectiveness of plan and consider methods for improving strategic planning processes</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.1, 2.2, 2.4-2.6, 3.1, 3.3, 4.4-4.6	<ul style="list-style-type: none"> Identifies and analyses complex organisational texts to determine business requirements Reviews, evaluates, interprets and applies content from a range of sources to aid in development of strategies
Writing	1.2, 1.3, 2.1, 2.2, 2.4-2.6, 3.1-3.3, 4.3-4.6	<ul style="list-style-type: none"> Prepares strategic plans for relevant stakeholders incorporating appropriate vocabulary, grammatical structure and conventions Incorporates amendments to documents according to organisational requirements Collates and compiles data to convey specific information, requirements and recommendations
Oral Communication	1.1, 1.4, 2.3, 4.1, 4.2	<ul style="list-style-type: none"> Presents information and seeks advice using language and register appropriate to audience Participates in discussions using listening and questioning to elicit the views of others and to clarify or confirm understanding
Numeracy	2.6, 3.2, 3.3, 4.5, 4.6	<ul style="list-style-type: none"> Interprets and analyses statistical data and mathematical information to consider trends and resource implications of proposed strategies
Navigate the world of work	1.1-1.3	<ul style="list-style-type: none"> Works autonomously making high level decisions to achieve and improve organisational goals Takes a lead role in the development of strategies to achieve organisational goals
Interact with others	1.1, 1.4, 2.3, 3.4, 4.1, 4.2	<ul style="list-style-type: none"> Selects and uses appropriate conventions and protocols when communicating with internal and external stakeholders to seek or share information Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group interaction, influencing direction and taking a leadership role Seeks feedback or expert advice where required
Get the work done	1.3, 2.1, 2.2, 2.4-2.7, 3.2, 4.3-4.6	<ul style="list-style-type: none"> Develops flexible plans for complex, high impact activities with strategic implications, taking into account capabilities, efficiencies and effectiveness Systematically gathers and analyses all relevant information and evaluates options to inform decisions about organisational strategies Evaluates outcomes to identify opportunities for

		improvement <ul style="list-style-type: none"> • Applies problem solving processes to identify risks, evaluate options and determine solutions
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBMGT616 Develop and implement strategic plans	BSBMGT616A Develop and implement strategic plans	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBMGT616 Develop and implement strategic plans

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- consult and communicate effectively with relevant stakeholders to:
 - confirm or revise the organisation's mission, vision and values
 - validate findings of research and analysis
 - get input to and endorsement of strategic plans
 - brief relevant parties about the plan
- analyse organisation's internal and external environment to formulate strategic plans including:
 - background and research relevant to the plan
 - legislation, regulations and codes of practice, including for intellectual property
 - objectives, strategies and priorities
 - roles and responsibilities
 - performance indicators
 - timeframes
 - consideration of co-operative ventures
 - cost-benefit and risk analysis
- seek advice from appropriate experts wherever necessary
- monitor and evaluate the implementation of the plan and make refinements as appropriate
- review effectiveness of planning processes and identify opportunities for improvement.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the legislation, regulations and codes of practice relevant to the organisation's strategic plan.
- give examples of risks and risk management strategies relevant to strategic planning including:
 - intellectual property rights and responsibilities
 - other risks
- outline strategic planning methodologies including political, economic, social and technological (PEST) analysis and strengths, weaknesses, opportunities and threats analysis (SWOT)
- identify internal and external sources of information relevant to the organisation's market, competitors, customer base, vision, values and capabilities
- outline techniques for developing organisational values.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership field of work and include access to:

- relevant legislation, regulations, standards and codes
- workplace documentation and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBMGT617 Develop and implement a business plan

Modification History

Release	Comments
Version 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to run a business operation and covers the steps required to develop and implement a business plan.

It applies to individuals who are running an organisation or who take a senior role in determining the effective functioning and success of the organisation. As such, they may oversee the work of a number of teams and other managers.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop business plan	1.1 Review and evaluate pre-existing strategic, business and operational plan, if available 1.2 Analyse and interpret business vision, mission, values and objectives 1.3 Consult with key stakeholders 1.4 Review market requirements for the product or service, profile customer needs and research pricing options

ELEMENT	PERFORMANCE CRITERIA
	1.5 Develop performance objectives and measures through consultation with key stakeholders 1.6 Identify financial, human and physical resource requirements for the business 1.7 Consider any permits or licences that may be required for new activity 1.8 Write business plan
2. Monitor performance	2.1 Communicate business plan to all relevant parties and ensure understanding of performance requirements and timeframes 2.2 Ensure skilled labour is available to implement plan 2.3 Test performance measurement systems and refine, if necessary 2.4 Ensure timely reports on all key aspects of the business are available, user-friendly and balanced in terms of financial and non-financial performance 2.5 Report system failures, product failures and variances to the business plan as they occur
3. Respond to performance data	3.1 Analyse performance reports against planned objectives 3.2 Review performance indicators and refine if necessary 3.3 Ensure groups and individuals contributing to under-performance are coached, and provide training where appropriate 3.4 Review system processes and work methods regularly as part of continuous improvement

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 1.4, 1.7, 2.3, 3.1, 3.2, 3.4	<ul style="list-style-type: none"> Gathers, interprets and analyses textual information when developing the business plan and monitoring operational performance Utilises understanding of distinguishing structures and features of a range of text as well as recognising and

		reflecting on context, purpose and audience
Writing	1.1, 1.2, 1.4, 1.5, 1.8, 2.3, 2.5, 3.2, 3.3, 3.4	<ul style="list-style-type: none"> Communicates relationships between ideas and information, matching style of writing to purpose and audience Researches, plans and prepares business plan for relevant stakeholders
Oral Communication	1.3, 1.5, 2.1, 3.3	<ul style="list-style-type: none"> Presents information and seeks advice using language and features appropriate to audience Participates in discussions using listening and questioning to elicit the views of others and to clarify or confirm understanding
Numeracy	1.1, 1.4, 1.5, 1.6, 1.8, 2.3, 2.4, 3.1, 3.2	<ul style="list-style-type: none"> Extracts and evaluates mathematical information to review the market, research competitors and review pricing structures
Navigate the world of work	1.7	<ul style="list-style-type: none"> Takes full responsibility for identifying and complying with legislative requirements applicable to self and the organisation
Interact with others	1.3, 1.5, 2.1, 3.3	<ul style="list-style-type: none"> Selects and uses appropriate conventions and protocols when communicating with internal and external stakeholders to seek or share information Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group interaction, influencing direction and taking a leadership role Provides support in field of expertise to colleagues, as required
Get the work done	1.2, 1.4, 1.5, 1.6, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 3.4	<ul style="list-style-type: none"> Sequences and schedules complex activities, monitors implementation and manages relevant communication Systematically gathers and analyses all relevant information and evaluates options in order to monitor performance and identify opportunities for improvement

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBMGT617Develop and implement a business plan	BSBMGT617A Develop and implement a business plan	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBMGT617 Develop and implement a business plan

Modification History

Release	Comments
Version 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- analyse and research business vision, mission, values, objectives, goals, competitors, financial targets, management arrangements, marketing approaches and strategic, business and operational plans
- write a business plan which includes a description of the business, products and services, financial, physical and human resource requirements, permit and licence requirements, marketing activity, financial indicators, productivity and performance targets for key result areas
- implement a business plan including ensuring skilled labour is available, and that training is provided where appropriate
- monitor and respond to business performance including evaluation of performance against key results indicators including profit and loss, community awareness or branding, environmental impact, governance, quality, sales, triple bottom line and the workforce
- consult, communicate with and report to key stakeholders including business partners, financiers, customers, staff and technical advisers
- provide an analysis of the strengths and weaknesses of a business plan.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline processes for developing business plans
- describe performance objectives and measures including key performance indicators
- identify key stakeholders.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership field of work and include access to:

- appropriate documentation and resources normally used in the workplace
- strategic, business and operational plans
- business information and data
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBMGT623 Monitor corporate governance activities

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the performance outcomes, skills and knowledge required to develop and implement procedures to ensure the organisation meets its corporate governance obligations. It covers researching corporate governance trends, standards and practices, establishing processes to promote compliance, reviewing compliance and taking corrective action on non-compliances.

It applies to individuals in any sector or type of organisation with responsibility for monitoring and managing compliance to corporate governance requirements.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish corporate governance standards and practices	1.1 Monitor the application of, and adherence to, professional and legal standards to identify emerging trends and interpretations of statutory and other regulatory requirements 1.2 Research governance audit reports and practices to assess methodologies and recommendations
2. Identify corporate	2.1 Analyse organisational practices to identify corporate

ELEMENT	PERFORMANCE CRITERIA
governance reporting trends	<p>governance obligations and performance</p> <p>2.2 Review queries from statutory and other regulatory authorities for corporate governance failure to identify the need for changes to internal control procedures</p> <p>2.3 Analyse the organisation's governance reports, returns and review processes to identify whether they meet current requirements</p>
3. Determine processes for corporate governance adherence	<p>3.1 Analyse internal control procedures to determine corporate governance compliance performance indicators</p> <p>3.2 Evaluate whether information technology systems meet corporate governance obligations for recording data from operations and transactions</p> <p>3.3 Establish management processes to support corporate governance</p> <p>3.4 Establish reporting plans to ensure the organisation meets compliance and reporting deadlines</p>
4. Review corporate governance compliance	<p>4.1 Monitor compliance performance indicators</p> <p>4.2 Monitor compliance preparation processes for compliance</p> <p>4.3 Analyse non-compliances to identify cause/s and implement corrective actions</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.2, 2.1-2.3, 3.1, 3.3, 3.4	<ul style="list-style-type: none"> Sources and researches textual information in the context of organisational strategy and compliance requirements to support plans, monitoring and reporting
Writing	3.3, 3.4	<ul style="list-style-type: none"> Develops complex texts using specialised and detailed language to convey information, requirements and recommendations in accordance with legal and organisational requirements
Navigate the world of	1.1, 2.1-2.3, 3.1, 3.2, 3.4	<ul style="list-style-type: none"> Leads in the development of organisational policies, procedures to support adherence to legal and statutory requirements

work		<ul style="list-style-type: none"> • Considers own role in terms of its contribution to broader goals of the organisation
Get the work done	1.1, 3.1-3.4, 4.1-4.3	<ul style="list-style-type: none"> • Takes responsibility for developing and implementing systems and processes to achieve organisational objectives, seeking advice and feedback as required • Monitors and evaluates performance against agreed benchmarks to ensure compliance with governance, statutory and legal requirements

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBMGT623 Monitor corporate governance activities	Not applicable	New unit	No equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBMGT623 Monitor corporate governance activities

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- develop, implement, monitor and review corporate governance
- access and interpret legislation and regulations to identify corporate governance compliance requirements
- research and analyse information to identify trends in corporate governance practices and reporting
- establish and implement processes for corporate governance adherence including determining corporate governance indicators and establishing a reporting plan
- meet statutory reporting requirements
- monitor compliance and analyse the causes of non-compliances including analysing governance reports, returns, review processes and the information technology system
- identify and implement corrective actions.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the legislation, regulations and statutory requirements and standards that relate to corporate governance obligations for the organisation including at least those covering:
 - finances and taxation
 - industrial relations, equal opportunity, employment records and superannuation
 - intellectual property
 - corporate entities
 - competition, ethical practice and consumer rights
 - work health and safety

- outline principles of internal control including statutory requirements
- understand statutory reporting requirements
- state the principles of valuation and apply common methods of depreciation.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership field of work and include access to:

- relevant legislation, regulations, standards and codes
- workplace documentation and resources including governance reports and returns
- business information technology systems
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBPMG418 Apply project stakeholder engagement techniques

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to assist in managing stakeholder relationships during a project. It involves ensuring timely and appropriate involvement of key individuals, organisations and groups throughout the project.

It applies to individuals who are project practitioners working in a project support role.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Project Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Assist in identifying and addressing stakeholder interests	1.1 Assist in identifying stakeholders relevant to project objectives 1.2 Segment stakeholder interests and assist in determining forms of engagement 1.3 Consider interests of stakeholders when advising on project operations 1.4 Support actions to address differing stakeholder interests where required
2. Actively participate in	2.1 Apply interpersonal skills to ensure stakeholder engagement is

ELEMENT	PERFORMANCE CRITERIA
stakeholder engagement	<p>effective</p> <p>2.2 Conduct stakeholder engagement in line with agreed and defined project roles</p> <p>2.3 Establish and clarify stakeholder behaviour expectations where required</p> <p>2.4 Openly engage with stakeholder performance reviews</p> <p>2.5 Recognise and address development needs and opportunities to support stakeholder engagement</p>
3. Assist stakeholder communications	<p>3.1 Assist in determining and documenting stakeholder communication needs</p> <p>3.2 Assist in negotiating agreement on project communication method, and content and timing of stakeholder engagement</p> <p>3.3 Support communication of information as planned within authority levels, identifying and addressing variances</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2	<ul style="list-style-type: none"> Recognises and interprets textual information to determine and adhere to objectives
Writing	1.2, 3.1	<ul style="list-style-type: none"> Documents findings on communication needs using required formats and structure
Oral Communication	1.1-1.3, 2.1-2.4, 3.1-3.3	<ul style="list-style-type: none"> Participates in verbal exchanges using clear and detailed language to provide relevant information Uses active listening and questioning techniques to elicit views and opinions of others
Navigate the world of work	2.2, 3.3	<ul style="list-style-type: none"> Understands how own role meshes with others and contributes to broader work goals
Interact with others	1.1-1.4, 2.1-2.5, 3.1-3.3	<ul style="list-style-type: none"> Recognises importance of taking audience, purpose and contextual factors into account when making decisions about what to communicate, with whom, why and how Collaborates with others as part of familiar routine

		<p>activities and contributes to specific activities</p> <ul style="list-style-type: none"> • Uses interpersonal skills to build rapport, negotiate agreement and maintain positive working relationships
Get the work done	1.1, 1.2, 2.2, 2.5, 3.1, 3.3	<ul style="list-style-type: none"> • Uses analytical skills to identify stakeholders and determine their needs • Follows pre-determined plans to achieve required outcomes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBPMG418 Apply project stakeholder engagement techniques	BSBPMG418A Apply project stakeholder engagement techniques	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBPMG418 Apply project stakeholder engagement techniques

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- work with others to establish various stakeholders needs and interests
- engage with project stakeholders using effective interpersonal skills and appropriate methods of communication
- select and use communications methods relevant to the project needs and stakeholder expectations
- complete all relevant documentation.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe different types of stakeholders
- explain the different levels of stakeholder engagement on projects
- describe techniques and strategies for stakeholder engagement
- explain why the interests and expectations of stakeholders must be considered
- describe common problems leading to variances in stakeholder engagement.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership – project management field of work and include access to:

- project documentation detailing stakeholder engagement
- examples of stakeholder engagement activities.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBPRO301 Recommend products and services

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to provide advice and information within an organisation about the development and distribution of its products and services.

It applies to individuals who apply a broad range of administrative competencies in varied work contexts, using some discretion and judgement and who may provide technical advice and support to a team.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Industry Capability – Product Skills and Advice

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop and maintain knowledge of products and services	1.1 Actively and regularly research knowledge and understanding of industry products and services using authoritative sources 1.2 Use available product and service documentation to identify and understand characteristics of products and services, and to make comparisons with other products and services 1.3 Accurately document and maintain information on products and services in a format consistent with organisational requirements

ELEMENT	PERFORMANCE CRITERIA
	1.4 Apply acquired knowledge to improve quality within personal work areas
2. Recommend products and services	<p>2.1 Ensure that recommendations on products and services are in line with organisational requirements</p> <p>2.2 Provide recommendations that emphasise product and service issues relevant to client needs</p> <p>2.3 Ensure that evidence in support of recommendations is verifiable and presented in a suitable format</p> <p>2.4 Structure recommendations to identify clear benefits to clients and the organisation</p>
3. Advise on promotional activities	<p>3.1 Provide advice that is clear, is supported by verifiable evidence and is compatible with organisational requirements</p> <p>3.2 Ensure that promotional documentation and materials are appropriate to presentation of the organisation's products and services</p> <p>3.3 Ensure that costs of promotional activities conform to budget resources</p> <p>3.4 Estimate impact of promotional activities from verifiable customer feedback sources</p> <p>3.5 Evaluate the benefits of promotional activities and incorporate in plans for future promotional activities</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 3.4	<ul style="list-style-type: none"> Interprets, understands and compares textual information about products and services from a range of sources
Writing	1.2, 1.3, 2.2, 2.3, 2.4, 3.1, 3.2, 3.5	<ul style="list-style-type: none"> Uses clear and specific language to develop documents for different audiences in accordance with organisational requirements
Oral Communication	3.1	<ul style="list-style-type: none"> Provides recommendations using language appropriate to the purpose and audience

Numeracy	3.3, 3.4	<ul style="list-style-type: none"> Extracts and evaluates meaning from data to calculate actual costs against budget and impact of promotional activities
Navigate the world of work	1.3, 1.4, 2.1, 3.1	<ul style="list-style-type: none"> Understands and follows organisational policies and procedures relevant to own role
Get the work done	1.1-1.3, 2.1-2.4, 3.1, 3.2, 3.5	<ul style="list-style-type: none"> Plans and implements tasks required to achieve required outcomes Analyses information in order to decide on appropriate advice or recommendations Evaluates outcomes of decisions to identify opportunities for improvement

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBPRO301 Recommend products and services	BSBPRO301A Recommend products and services	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBPRO301 Recommend products and services

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- use appropriate sources to document accurate information about the organisation's products and services
- prepare and provide advice about products and services according to organisational requirements
- evaluate promotional activities including consideration of:
 - whether promotional materials meet organisational requirements
 - actual costs against budget
 - customer feedback.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- list authoritative sources of information about the organisation's products and services
- outline the organisation's products and services
- outline the policies and procedures that apply when providing advice or recommendations about products and services
- list and describe organisational promotional activities
- explain methods used to gather verifiable customer feedback about products and services
- explain how and why customer feedback is analysed.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the industry capability – product skills and advice field of work and include access to:

- relevant organisational policies and procedures
- relevant workplace documentation and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBREL402 Build client relationships and business networks

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to establish, maintain and improve client relationships and to actively participate in networks to support attainment of key business outcomes.

It applies to individuals such as marketing and sales professionals who depend on excellent interpersonal relationships and communication skills to achieve outcomes but may also apply to other individuals working in any industry.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Stakeholder Relations – Relationship Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Initiate interpersonal communication with clients	1.1 Identify and use preferred client communication styles and methods 1.2 Establish rapport with clients using verbal and non-verbal communication processes 1.3 Investigate and act upon opportunities to offer positive feedback to clients

ELEMENT	PERFORMANCE CRITERIA
	1.4 Use open questions to promote two-way communication 1.5 Identify and act upon potential barriers to effective communication with clients 1.6 Initiate communication processes which relate to client needs, preferences and expectations
2. Establish client relationship management strategies	2.1 Develop client loyalty objectives focusing on the development of long term business partnerships 2.2 Assess client profile information to determine approach 2.3 Develop client loyalty strategies to attract and retain clients in accordance with the business strategy 2.4 Identify and apply client care and client service standards
3. Maintain and improve ongoing relationships with clients	3.1 Develop strategies to obtain ongoing feedback from clients to monitor satisfaction levels 3.2 Develop strategies to elicit feedback which provide information in a form that can be used to improve relationships with clients 3.3 Obtain feedback to develop and implement strategies which maintain and improve relationships with clients
4. Build and maintain networks	4.1 Allocate time to establish and maintain business contacts 4.2 Participate in business associations and/or professional development activities to establish and maintain a network of support for the business and to enhance personal knowledge of the market 4.3 Establish communication channels to exchange information and ideas 4.4 Provide, seek and verify information to the network

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.3, 1.5, 2.2, 2.3, 2.4, 3.1, 4.2- 4.4	<ul style="list-style-type: none"> Interprets information from a range of sources to determine and adhere to communication and networking requirements

Writing	1.1,1.5, 2.1, 2.3, 2.4, 3.1, 3.2, 4.2, 4.3	<ul style="list-style-type: none"> Records notes from research and discussions for future reference Develops materials for a specific audience according to organisational standards
Oral Communication	1.1-1.6, 2.3, 2.4, 3.3, 4.2-4.4	<ul style="list-style-type: none"> Participates in spoken exchanges with a range of audiences using structure and language to suit the audience Involves others in discussions using active listening and questioning techniques appropriately
Numeracy	2.4, 4.1	<ul style="list-style-type: none"> Performs calculations to determine timeframes and measure actual performance against required standards
Navigate the world of work	2.3, 2.4	<ul style="list-style-type: none"> Considers wider organisational goals when developing customer relationship strategies
Interact with others	1.1, 1.2, 1.5, 1.6, 3.3, 4.2-4.4	<ul style="list-style-type: none"> Selects and uses appropriate conventions and protocols when communicating with clients or business contacts to build rapport, seek or present information Recognises the need to alter personal communication style in response to the needs, values, beliefs and cultural expectations of others Adapts personal communication style to build positive working relationships and show respect for the opinions, values and particular needs of others
Get the work done	1.1, 2.1-2.4, 3.1-3.3, 4.1-4.4	<ul style="list-style-type: none"> Takes responsibility for planning, sequencing and implementing tasks and own workload to achieve business outcomes Uses analytical processes to gather relevant information, identify and evaluate options and decide on appropriate systems and strategies Actively monitors and evaluates effectiveness of decisions to identify and implement improvements

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBREL402 Build client relationships and business networks	BSBREL402A Build client relationships and business networks	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBREL402 Build client relationships and business networks

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- identify clients' preferred communication styles and methods and potential barriers to communications and use appropriate communication styles and strategies
- apply communication techniques to establish rapport and promote two-way communication
- develop and implement client loyalty strategies and service standards based on business objectives and client information
- develop and implement strategies to elicit feedback from clients and use it to improve relationships and customer satisfaction
- maintain contacts and participate in formal and informal networks that support the business and enhance personal knowledge of the market.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- give examples of strategies that can build client loyalty including those that focus on:
 - financial incentives and special offers
 - premium services and private/dedicated facilities
 - loyalty programs, rewards and recognition
- outline issues that are commonly addressed in client care/service standards in the industry
- outline typical barriers to communicating with clients and possible strategies to address them
- give examples of strategies for feedback
- describe the principles and techniques for effective communication and networking
- outline networking opportunities relevant to the business with reference to:

- government, industry and professional associations
- trade shows, conferences, briefings and other professional development activities
- existing groups or networks
- businesses and individuals
- outline aspects of organisational policies, procedures and processes that are relevant to communicating with clients and participating in networks.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the stakeholder relations - relationship management field of work and include access to:

- relevant workplace documentation and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBRES401 Analyse and present research information

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to gather, organise, analyse and present workplace information using available systems. This includes identifying research requirements and sources of information, applying information to a set of facts, evaluating the quality of the information, and preparing and producing reports.

It applies to individuals who are required to apply their broad knowledge of the work environment to analysis and research tasks, evaluate information from a variety of sources and apply solutions to a range of unpredictable problems

No licensing, legislation or certification requirements apply to this unit at the time of publication.

Unit Sector

Knowledge Management – Research

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Gather and organise information	1.1 Gather and organise information in a format suitable for analysis, interpretation and dissemination in accordance with organisational requirements 1.2 Access information held by the organisation ensuring accuracy and relevance in line with established organisational requirements 1.3 Ensure that methods of collecting information are reliable and

ELEMENT	PERFORMANCE CRITERIA
	<p>make efficient use of resources in accordance with organisational requirements</p> <p>1.4 Identify research requirements for combining online research with non-electronic sources of information</p> <p>1.5 Use business technology to access, organise and monitor information in accordance with organisational requirements</p> <p>1.6 Update, modify, maintain and store information, in accordance with organisational requirements</p>
2. Research and analyse information	<p>2.1 Clearly define objectives of research ensuring consistency with organisational requirements</p> <p>2.2 Ensure that data and research strategies used are valid and relevant to the requirements of the research and make efficient use of available resources</p> <p>2.3 Identify key words and phrases for use as part of any online search strategy, including the use of Boolean operators and other search tools</p> <p>2.4 Use reliable methods of data analysis that are suitable to research purposes</p> <p>2.5 Ensure that assumptions and conclusions used in analyses are clear, justified, supported by evidence and consistent with research and business objectives</p>
3. Present information	<p>3.1 Present recommendations and issues in an appropriate format, style and structure using suitable business technology</p> <p>3.2 Structure and format reports in a clear manner that conforms to organisational requirements</p> <p>3.3 Report and distribute research findings in accordance with organisational requirements</p> <p>3.4 Obtain feedback and comments on suitability and sufficiency of findings in accordance with organisational requirements</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description

Reading	1.1, 1.2, 1.4, 2.1-2.5, 3.4	<ul style="list-style-type: none"> Analyses and evaluates textual information to develop research strategies, integrate facts and ideas and meet organisational requirements
Writing	1.1, 1.5, 1.6, 2.1, 3.1, 3.2, 3.3	<ul style="list-style-type: none"> Gathers, evaluates and integrates information from a range of sources Presents findings, recommendations and issues in required format using language, structure and style appropriate to audience.
Oral Communication	3.3, 3.4	<ul style="list-style-type: none"> Presents recommendations and issues using language appropriate to audience and according to organisational requirements
Numeracy	1.1, 1.2, 1.3, 2.2, 2.4, 3.3	<ul style="list-style-type: none"> Extracts and evaluates meaning from data and interprets numerical information to apply within the context of requirements
Navigate the world of work	1.2, 1.3, 1.5, 1.6, 2.1, 2.5, 3.2, 3.3, 3.4	<ul style="list-style-type: none"> Recognises and follows organisational policies and procedures and meets expectations associated with own role
Interact with others	3.3, 3.4	<ul style="list-style-type: none"> Selects and uses appropriate communication practices when seeking or sharing information
Get the work done	1.1, 1.4, 1.5, 2.2, 2.3, 2.4, 3.1	<ul style="list-style-type: none"> Plans, organises and implements tasks to meet organisational requirements Takes responsibility for the outcomes of routine decisions related directly to own role Uses the main features and functions of digital technologies and tools to complete work tasks Recognises and takes responsibility for addressing predictable and some less predictable problems in familiar work contexts

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBRES401 Analyse and present research information	BSBRES401A Analyse and present research information	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBRES401 Analyse and present research information

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- identify or confirm research requirements and objectives
- gather, organise and present workplace information and data
- update, modify, maintain and store information
- maintain and handle data and documents systematically and securely
- prepare and produce reports including:
 - recommendations based on the analysis of information
 - clear and justified assumptions and conclusions
 - use of efficient, valid and reliable methods
- use Boolean operators and other search tools
- analyse, evaluate and interpret data to support organisational activities.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain organisational systems for recordkeeping/filing, including security procedures
- identify organisational policies and procedures and legal and ethical obligations relating to workplace information
- explain concepts related to research and analysis including reliability and validity
- give examples of techniques for data analysis and how they are applied
- explain research processes and strategies to identify new sources (online and print) of information and to use them most efficiently and effectively.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the knowledge management – research field of work and include access to:

- workplace information systems, equipment and resources
- workplace policies and procedures
- case studies and, where possible, real situations.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBRES801 Initiate and lead applied research

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to plan, conduct and report on applied research to influence strategic practices and outcomes within an organisational context.

The unit also covers constructing an applied research strategy, using a range of applied research techniques, and analysing and presenting findings.

It applies to leaders or managers using applied research to ensure learning can enhance individual, team and organisational performance. The intended purpose and approach to applied research may vary across a range of contexts and organisations. In this unit, the focus is on applied research to attain improved organisational outcomes.

No licensing, legislation or certification requirements apply to this unit at the time of publication.

Unit Sector

Knowledge Management – Research

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Construct an applied research strategy	1.1 Clarify and confirm applied research purpose and needs of the target group 1.2 Determine policies and procedures in relation to conducting applied research 1.3 Establish mechanisms for collecting and maintaining data in a

ELEMENT	PERFORMANCE CRITERIA
	systematic manner 1.4 Analyse factors affecting the reliability and validity of data 1.5 Review relevant research ethics and codes of conduct 1.6 Prepare applied research strategy and hypothesis 1.7 Frame a research strategy in consideration of available tools and resources
2. Use a range of applied research techniques	2.1 Review and evaluate a range of applied research methods, theories and data collection techniques 2.2 Select appropriate methods to gather and analyse data 2.3 Use suitable technology and technology services to support data collection and analysis 2.4 Access appropriate sources of information and contributors relevant to the research 2.5 Optimise relevance of the research through integrity of the data collected and analysis tools used
3. Analyse and present findings	3.1 Evaluate how research findings such as trends and changes will impact on learning strategy 3.2 Review data and research findings for accuracy of details and adherence to any legal requirements 3.3 Collate and analyse data for relevance against the original applied research strategy 3.4 Document and present research findings in a clear and logical manner consistent with audience needs 3.5 Identify the need for and an appropriate approach to, further research

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Learning	3.5	<ul style="list-style-type: none"> Evaluates and reflects on the need for further research to contribute to ongoing organisational improvement

Reading	1.1, 1.2, 1.5, 2.4, 3.1, 3.2	<ul style="list-style-type: none"> Collects, analyses, compares and evaluates textual information from a range of resources to inform research strategies
Writing	1.6, 3.3, 3.4	<ul style="list-style-type: none"> Develops texts dealing with complex ideas and concepts Uses specialised and detailed language to convey explicit information, requirements and recommendations in accordance with legal, ethical and organisational requirements
Oral Communication	1.1, 3.4	<ul style="list-style-type: none"> Uses specialised vocabulary appropriate to context and audience to discuss and confirm research requirements Applies listening and questioning techniques to check or confirm understanding
Numeracy	3.2, 3.3	<ul style="list-style-type: none"> Applies knowledge of mathematical information to statistically analyse data and identify possible trends and confirm reliability
Navigate the world of work	1.2, 1.5, 3.2	<ul style="list-style-type: none"> Is highly autonomous, taking responsibility for determining applicable organisational policies and procedures and considering legal and ethical obligations Monitors adherence to legal and regulatory rights and responsibilities for self and possibly for others
Interact with others	3.4	<ul style="list-style-type: none"> Demonstrates sophisticated control over oral, visual and/or written formats, drawing on a diverse range of communication practices to achieve goals
Get the work done	1.1, 1.2, 1.3, 1.7, 2.1, 2.2, 2.3, 2.4, 2.5, 3.3	<ul style="list-style-type: none"> Develops plans for complex activities, regularly reviewing priorities and performance during implementation, identifying and addressing issues as they arise Considers the strategic and operational potential of digital trends to achieve work goals, enhance work processes, create opportunities and enhance or reduce risks Uses formal analytical thinking to make informed decisions about research strategies and techniques, seeking input, advice and feedback as required

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBRES801 Initiate and lead applied research	BSBRES801A Initiate and lead applied research	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBRES801 Initiate and lead applied research

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- plan, conduct and report on applied research relevant to organisational strategic practices and outcomes
- formulate a research proposal or plan which includes:
 - specific research questions or hypotheses
 - valid population or sample size
 - description of the geographical, cultural, social or institutional context within which the research will be carried out
 - full description of the data collection methods
 - analysis of the limitations to research design including the reliability and validity of data
- design an applied research project using applied research tools and techniques
- document and present research findings including analysis of data, valid and reliable findings and recommendations for further research.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe communication processes and methods
- explain data collection and analysis methods including the use of technology and technology services
- explain legal requirements, policies, procedures and guidelines relating to research including handling and storing data, privacy and freedom of information
- describe presentation techniques

- describe reporting methods
- explain research ethics and codes of conduct
- give examples of applied research tools and methods and how they are applied.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the knowledge management – research field of work and include access to:

- business technology
- relevant workplace policies and procedures
- relevant legislation and codes of conduct
- case studies and, where possible, real situations .

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBRSK401 Identify risk and apply risk management processes

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to identify risks and to apply established risk management processes to a defined area of operations that are within the responsibilities and obligations of the role.

It applies to individuals with a broad knowledge of risk analysis or project management who contribute well developed skills in creating solutions to unpredictable problems through analysis and evaluation of information from a variety of sources. They may have responsibility to provide guidance or to delegate aspects of these tasks to others.

In this unit, risks applicable within own work responsibilities and area of operation, may include projects being undertaken individually or by a team, or operations within a section of the organisation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Regulation, Licensing and Risk – Risk Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify risks	1.1 Identify the context for risk management 1.2 Identify risks using tools, ensuring all reasonable steps have

ELEMENT	PERFORMANCE CRITERIA
	<p>been taken to identify all risks</p> <p>1.3 Document identified risks in accordance with relevant policies, procedures, legislation and standards</p>
2. Analyse and evaluate risks	<p>2.1 Analyse and document risks in consultation with relevant stakeholders</p> <p>2.2 Undertake risk categorisation and determine level of risk</p> <p>2.3 Document analysis processes and outcomes</p>
3. Treat risks	<p>3.1 Determine appropriate control measures for risks and assess for strengths and weaknesses</p> <p>3.2 Identify control measures for all risks</p> <p>3.3 Refer risks relevant to whole of organisation or having an impact beyond own work responsibilities and area of operation to others as per established policies and procedures</p> <p>3.4 Choose and implement control measures for own area of operation and/or responsibilities</p> <p>3.5 Prepare and implement treatment plans</p>
4. Monitor and review effectiveness of risk treatment/s	<p>4.1 Regularly review implemented treatment/s against measures of success</p> <p>4.2 Use review results to improve the treatment of risks</p> <p>4.3 Provide assistance to auditing risk in own area of operation</p> <p>4.4 Monitor and review management of risk in own area of operation</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.2	<ul style="list-style-type: none"> Comprehends documents and texts of varying complexity to extract and analyse relevant information
Writing	1.3, 2.1, 2.3, 3.5	<ul style="list-style-type: none"> Uses specific, industry related terminology and logical organisational structure in workplace documents that identify and analyse risk and report management process outcomes

Oral communication	2.1	<ul style="list-style-type: none"> Participates effectively in interactions with stakeholders by using questioning and listening to elicit opinions and clarify understanding
Numeracy	1.2, 4.1	<ul style="list-style-type: none"> Uses numerical tools to assess risk and uses numerical data to review plans
Navigate the world of work	1.1, 1.3, 3.3	<ul style="list-style-type: none"> Complies with organisational and legislative requirements Takes responsibility for identification and management of risk within own work context and refers matters to others as required
Interact with others	2.1	<ul style="list-style-type: none"> Selects appropriate communication protocols and conventions when conferring with others to establish risk management requirements
Get the work done	1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.4, 3.5, 4.1, 4.2, 4.3, 4.4	<ul style="list-style-type: none"> Determines job sequence and works logically and systematically to undertake defined tasks Uses analysis and consultative processes to inform decisions about selection and implementation of risk control measures Evaluates effectiveness of plans and results to inform improvement decisions Uses familiar digital technologies and systems to access information, prepare plans and communicate with others

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBRSK401 Identify risk and apply risk management processes	BSBRSK401A Identify risk and apply risk management processes	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBRK401 Identify risk and apply risk management processes

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to apply organisational policies, procedures and processes to:

- identify risks
- consult with relevant stakeholders to analyse and evaluate risks
- identify and evaluate control measures
- develop and implement treatment plans for own area or responsibility
- refer risks that are beyond own area of responsibility to others
- maintain risk management documentation.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline techniques for identifying and evaluating risks
- outline organisational policies, procedures or processes for risk management
- give examples of areas where risks are commonly identified in an organisation
- outline the purpose and key elements of current risk management standards
- outline the legislative and regulatory context of the organisation in relation to risk management
- describe the organisation's auditing requirements relating to risk management.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the regulation, licensing and risk - risk management field of work and include access to:

- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBRSK501 Manage risk

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes skills and knowledge required to manage risks in a range of contexts across an organisation or for a specific business unit or area in any industry setting.

It applies to individuals who are working in positions of authority and are approved to implement change across the organisation, business unit, program or project area. They may or may not have responsibility for directly supervising others.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Regulation, Licensing and Risk – Risk Management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish risk context	1.1 Review organisational processes, procedures and requirements for undertaking risk management in accordance with current risk management standards 1.2 Determine scope for risk management process 1.3 Identify internal and external stakeholders and their issues 1.4 Review political, economic, social, legal, technological and policy context

ELEMENT	PERFORMANCE CRITERIA
	1.5 Review strengths and weaknesses of existing arrangements 1.6 Document critical success factors, goals or objectives for area included in scope 1.7 Obtain support for risk management activities 1.8 Communicate with relevant parties about the risk management process and invite participation
2. Identify risks	2.1 Invite relevant parties to assist in the identification of risks 2.2 Research risks that may apply to scope 2.3 Use tools and techniques to generate a list of risks that apply to the scope, in consultation with relevant parties
3. Analyse risks	3.1 Assess likelihood of risks occurring 3.2 Assess impact or consequence if risks occur 3.3 Evaluate and prioritise risks for treatment
4. Select and implement treatments	4.1 Determine and select most appropriate options for treating risks 4.2 Develop an action plan for implementing risk treatment 4.3 Communicate risk management processes to relevant parties 4.4 Ensure all documentation is in order and appropriately stored 4.5 Implement and monitor action plan 4.6 Evaluate risk management process

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.4, 1.5, 2.2	<ul style="list-style-type: none"> Comprehends a variety of relatively complex texts Gathers, interprets and analyses textual information from a range of sources to identify relevant information
Writing	1.6, 1.8, 2.1, 2.3, 4.3	<ul style="list-style-type: none"> Develops textual material and organises content in a manner that effectively documents

		risk management analysis and assessment priorities and processes
Oral Communication	1.8, 2.1, 2.3, 4.3	<ul style="list-style-type: none"> Participates in interactions with stakeholders using questioning and listening to elicit opinions, and to confirm and clarify understanding
Numeracy	2.2	<ul style="list-style-type: none"> Uses numerical tools to assess risk and uses numerical data to review plans
Navigate the world of work	1.1, 2.1, 4.3	<ul style="list-style-type: none"> Refers to organisational processes, procedures and requirements when making decisions about risk management
Interact with others	1.8, 2.1, 2.3, 4.3	<ul style="list-style-type: none"> Establishes and uses appropriate conventions and protocols when communicating with stakeholders about risk management Consults and negotiates with stakeholders about risk management processes and outcomes
Get the work done	1.2, 1.3, 1.5, 1.7, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 4.1, 4.2, 4.4, 4.5, 4.6	<ul style="list-style-type: none"> Sequences and schedules a range of routine and complex activities, monitors implementation, evaluates processes and manages relevant communication Systematically analyses information to decide on appropriate risk management treatments Uses digital technologies and systems to access information, document plans and communicate with others

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBRSK501 Manage risk	BSBRSK501B Manage risk	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBR501 Manage risk

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- analyse information from a range of sources to identify the scope and context of the risk management process including:
 - stakeholder analysis
 - political, economic, social, legal, technological and policy context
 - current arrangements
 - objectives and critical success factors for the area included in scope
 - risks that may apply to scope
- consult and communicate with relevant stakeholders to identify and assess risks, determine appropriate risk treatment actions and priorities and explain the risk management processes
- develop and implement an action plan to treat risks
- monitor and evaluate the action plan and risk management process
- maintain documentation.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the purpose and key elements of current risk management standards
- outline the legislative and regulatory context of the organisation in relation to risk management
- outline organisational policies, procedures and processes for risk management.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the regulation, licensing and risk - risk management field of work and include access to:

- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBSLS402A Identify sales prospects

Modification History

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to identify of potential sales prospects through application of prospecting methods.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

This unit describes the performance outcomes, skills and knowledge required to identify of potential sales prospects through application of prospecting methods.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Application of the Unit

This unit applies to individuals in a sales related position in a small, medium or large enterprise across a wide variety of industries who identify and collate sales prospect information that can be used to generate leads. They may provide advice and support about aspects of sales solutions to support a sales team.

This unit applies to individuals in a sales related position in a small, medium or large enterprise across a wide variety of industries who identify and collate sales prospect information that can be used to generate leads. They may provide advice and support about aspects of sales solutions to support a sales team.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Employability Skills Information

This unit contains employability skills.

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Employ prospecting methods	1.1 Identify a range of prospecting methods
	1.2 Consider and evaluate the strengths and limitations of primary and secondary prospecting methods
	1.3 Select prospecting methods to match the market to which the product is targeted
	1.4 Target present, previous and new clients through chosen prospecting methods
2 Qualify prospects	2.1 Research and establish criteria for qualifying leads
	2.2 Ensure criteria are established according to buyer accessibility, buyer motives , product affordability, purchase authority, legal compliance and return for the seller
	2.3 Ensure the established criteria represent a standard against which the buying potential of individuals and groups is gauged
3 Manage prospect information	3.1 Develop a system to record prospect information
	3.2 Implement the system for recording prospect information
	3.3 Monitor the system for recording prospect information for effectiveness
	3.4 Evaluate the system for recording prospect information

3.5 Refine the system for recording prospect information based on evaluation of system

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

literacy skills to interpret legal requirements, company policies and procedures

research and data analysis skills to determine prospect requirements

technology skills to design and record formats to facilitate information storage and retrieval.

Required knowledge

principles of buyer motives

identification and overview knowledge of key provisions of relevant legislation from all levels of government that affects business operations, codes of practice and national standards, such as:

anti-discrimination

ethical principles

consumer protection

contract law

privacy laws

Trade Practices Act

benefits and key features of own organisation's and competitors' products

information management strategies used to manage prospect data

prospecting methods used in the sales process.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- demonstration of the use and management of different prospecting methods targeting a present, previous and new client
- research and establishment of criteria used in qualifying leads identified through prospecting methods
- recording, storage and retrieval of prospect information.

Context of and specific resources for assessment

Assessment must ensure:

- access to an actual workplace or simulated environment
- access to organisational sales prospect information, databases and records.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- analysis of responses to case studies and scenarios
- assessment of criteria developed to qualify sales leads
- demonstration of prospecting methods
- direct questioning combined with portfolios of evidence and third party workplace reports of on-the-job performance by the candidate
- observation of use of prospecting methods
- oral or written questioning to assess knowledge of principles of buyer motives
- review of research undertaken to establish criteria for qualifying leads
- evaluation of the system developed to record prospect information.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

customer service units

other sales units.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Prospecting methods may include:

brokers

cold canvassing

databases

direct mail

internet

intra organisational leads

journals

magazines

media advertising

networking

newspapers

personal observation

public records

referrals

spotters

telemarketing

Products may include:

goods

ideas

services

Clients may include:

consumers
customers
members
patients
members of other business units within an organisation
other work teams within an organisation
person or organisation who receives or has the potential to receive products, services or ideas supplied by the organisation

Buyer motives may include:

browsing
buying for unqualified prospect e.g. dependant
gift
housekeeping
replacement item
self reward
self-gratification

Unit Sector(s)

empty

empt

Competency field

Business Development - Sales

Business Development - Sales

BSBSMB401 Establish legal and risk management requirements of small business

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to identify and comply with all regulations affecting the business.

It applies to individuals operating a small business who use analytical skills to interpret legislation and regulations and develop procedures to manage compliance.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Small and Micro Business

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and implement business legal requirements	1.1 Identify and research possible options for the business legal structure using appropriate sources 1.2 Determine legislation and regulatory requirements affecting

ELEMENT	PERFORMANCE CRITERIA
	<p>operations of the business under its chosen structure</p> <p>1.3 Develop and implement procedures to ensure full compliance with relevant legislation and regulatory requirements</p>
<p>2. Comply with legislation, codes and regulatory requirements</p>	<p>2.1 Establish systems to ensure legal rights and responsibilities of the business are identified and the business is adequately protected, specifically in relation to work health and safety (WHS), business registration and environmental requirements</p> <p>2.2 Identify taxation principles and requirements relevant to the business, and follow procedures to ensure compliance</p> <p>2.3 Identify and carefully maintain legal documents and maintain and update relevant records to ensure their ongoing security and accessibility</p> <p>2.4 Monitor provision of products and services of the business to protect legal rights and to comply with legal responsibilities</p> <p>2.5 Conduct investigations to identify areas of non-compliance with legal and regulatory requirements, and take corrective action where necessary</p>
<p>3. Negotiate and arrange contracts</p>	<p>3.1 Seek legal advice on contractual rights and obligations, if required, to clarify business liabilities</p> <p>3.2 Investigate and assess potential products and services to determine procurement rights and ensure protection of business interests where applicable</p> <p>3.3 Negotiate and secure contractual procurement rights for goods and services including contracts with relevant people, as required, in accordance with the business plan</p> <p>3.4 Identify options for leasing or ownership of business premises and complete contractual arrangements in accordance with the business plan</p>
<p>4. Identify and treat business risks</p>	<p>4.1 identify potential internal and external risks to the business</p> <p>4.2 assess the probability and impact of identified risks</p> <p>4.3 prioritise risks for treatment</p> <p>4.4 develop actions to mitigate risks including identifying insurance requirements and adequate cover</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.1-2.4, 3.2-3.5	<ul style="list-style-type: none"> Identifies, analyses and evaluates a range of complex text to determine legislative, regulatory and related business requirements
Writing	1.3, 2.1, 2.3, 2.5, 3.1, 3.3, 3.5	<ul style="list-style-type: none"> Prepares written reports and workplace documentation that communicate complex information clearly and effectively
Oral Communication	2.5, 3.1, 3.3	<ul style="list-style-type: none"> Uses specific and relevant language to clearly articulate legal issues, and uses questioning and listening techniques to clarify solutions Participates in verbal negotiations using tone and language suitable to audience
Numeracy	2.2, 2.5, 3.3, 3.4	<ul style="list-style-type: none"> Reviews, analyses, compares and contrasts numerical data which may be embedded in documents Calculates business insurance costs and compares costing options
Navigate the world of work	1.2, 1.3, 2.1	<ul style="list-style-type: none"> Monitors adherence to organisational policies and legislative responsibilities and considers own role in terms of its contribution to broader goals of work environment
Interact with others	3.1, 3.3	<ul style="list-style-type: none"> Plays a lead role in situations requiring effective collaboration, demonstrating high-level influencing skills, focusing and shaping awareness, and engaging and motivating others
Get the work done	1.1-1.3, 2.1	<ul style="list-style-type: none"> Takes responsibility for planning and organising own workload, identifying ways of sequencing and combining elements for greater efficiency Implements actions as per plan, making adjustments if necessary and addressing unexpected issues Understands importance of secure information and privacy in relation to own work and takes personal responsibility for identifying and managing risk factors Makes a range of critical and non-critical decisions in complex situations, taking a range of constraints into account

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB401 Establish legal and risk management requirements of small business Release 2	BSBSMB401 Establish legal and risk management requirements of small business Release 1	Minor edits to clarify intent of unit	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBSMB401 Establish legal and risk management requirements of small business

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- demonstrate a systematic approach to identifying, managing and meeting legal and regulatory requirements, specifically in regard to WHS, business registration and environmental requirements
- ensure compliance, by:
 - following taxation and industrial relations principles
 - updating and maintaining legal documents
 - investigating areas of non-compliance
 - monitoring provision of products and services
 - taking corrective action where necessary
- negotiate and arrange contracts, including:
 - seeking legal advice
 - investigating procurement rights
 - identifying options of leasing or ownership of business premises.
- Identify, assess and treat risks specific to the business including
 - prioritising risks with highest probability of occurrence and greatest negative impact on the business
 - identifying insurance requirements

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline business registration and licensing requirements
- identify all government legislative requirements relating to the specific business operation
- explain creation and termination of relevant legal contracts
- summarise relevant cultural differences and legal implications
- describe legal rights and obligations of alternative ownership structures
- outline necessary record keeping to meet minimum legal and taxation requirements
- summarise relevant consumer legislation and industry codes of practice
- outline the key steps in the risk management process
- explain relevant insurance requirements and products.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- office equipment and resources
- business technology including internet access
- specialist software for analysis of data
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies, or where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBSMB402 Plan small business finances

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to identify financial requirements of a business, including profit targets, cash flow projections and strategies to garner financial support.

It applies to individuals who operate a small business or work within an existing micro or small businesses and interpret financial data.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Small and Micro Business

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify costs, calculate prices and prepare profit statement	1.1 Identify and document costs associated with production and delivery of business products and services 1.2 Calculate prices based on costs and profit margin, as an hourly

ELEMENT	PERFORMANCE CRITERIA
	charge-out rate for labour or unit price for products 1.3 Calculate break-even sales point to establish business viability and profit margins 1.4 Identify appropriate pricing strategies in relation to market conditions to meet business profit targets 1.5 Prepare projected profit statement to supplement the business plan
2. Develop a financial plan	2.1 Set profit targets or goals to reflect owner's desired returns 2.2 Identify working capital requirements necessary to attain profit projections 2.3 Identify non-current asset requirements and consider alternative asset management strategies 2.4 Prepare cash flow projections to enable business operation in accordance with business plan and legal requirements 2.5 Identify capital investment requirements accurately for each operational period 2.6 Select budget targets to enable ongoing monitoring of financial performance
3. Acquire finance	3.1 Identify start-up and ongoing financial requirements according to financial plan/budget 3.2 Identify sources of finance, including potential financial backers, to provide required liquidity for the business to complement business goals and objectives 3.3 Investigate cost of securing finance on optimal terms 3.4 Identify strategies to obtain finance as required to ensure financial viability of the business

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.5, 2.1-2.5, 3.1,	<ul style="list-style-type: none"> Identifies, analyses and evaluates complex information from a range of sources

	3.2	
Writing	1.1, 1.5, 2.1, 2.4, 3.2	<ul style="list-style-type: none"> Prepares written reports and workplace documentation that communicate complex information clearly and effectively
Oral Communication	1.1, 3.2	<ul style="list-style-type: none"> Uses specific and relevant language to secure finance and uses questioning and listening techniques to clarify outcomes Participates in verbal negotiations using tone and language suitable to audience
Numeracy	1.1-1.5, 2.1, 2.2, 2.4-2.6, 3.1, 3.3, 3.4	<ul style="list-style-type: none"> Analyses numerical information to determine costs, prices, profit and losses, and other financial data
Navigate the world of work	2.4	<ul style="list-style-type: none"> Appreciates implications of legal and regulatory responsibilities related to own work
Get the work done	1.1, 1.4, 2.1-2.3, 2.5, 2.6, 3.1, 3.2, 3.4	<ul style="list-style-type: none"> Sequences and schedules complex activities, including implementing and monitoring financial strategies Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account, making adjustments as necessary Regularly uses formal thinking techniques to generate new ideas

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB402 Plan small business finances Release 2	BSBSMB402 Plan small business finances Release 1	Updated to clarify intent	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBSMB402 Plan small business finances

Modification History

Release	Comments
Release 2	This version first released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- develop a financial plan which identifies financial requirements of the business, including cash flow projections and a projected profit statement
- follow the financial plan, including:
 - demonstrating an awareness of appropriate legal requirements
 - implementing strategies to monitor financial performance
- identify sources and investigate costs of securing appropriate financial assistance.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain break-even analysis
- clarify costing for the business, including margin or mark-up, hourly charge-out rates and unit costs
- summarise financial decision-making relevant to the business
- outline methods and relative costs of obtaining finance
- summarise principles for preparing balance sheets
- provide a detailed explanation of:
 - principles for preparation of cash flow forecasts
 - principles for preparation of profit and loss statements

- purpose of financial reports
- explain relevant accounting terminology
- describe working capital cycles.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- software for financial calculations
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or where possible, real situations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBSMB403 Market the small business

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to monitor and improve business performance via a clear marketing strategy integrated into the business plan.

It applies to individuals who operate a small business independently or within a larger organisation. Individuals in this role analyse and interpret market data.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Small and Micro Business

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop marketing strategies	1.1 Analyse the business and its key products or services to determine focus of marketing activities, in accordance with objectives of the business plan 1.2 Evaluate customer base and target market for the small

ELEMENT	PERFORMANCE CRITERIA
	<p>business as a basis for marketing objectives and strategies</p> <p>1.3 Conduct a competitor analysis to inform development of marketing strategies</p> <p>1.4 Determine marketing objectives in consultation with relevant people and in accordance with the business plan</p> <p>1.5 Ensure strategies are ethically and culturally appropriate and aligned with customer and industry expectations</p>
2. Determine a marketing mix for the business	<p>2.1 Assess product mix, volumes and pricing opportunities to determine marketing focus and optimise profit</p> <p>2.2 Evaluate costs and benefits of using different distribution channels or providing different levels of customer service, and consider results in determining marketing mix</p> <p>2.3 Determine marketing and promotional activities including the role of digital engagement to suit target market</p> <p>2.4 Consider the customer journey and conversations in determining marketing mix</p>
3. Implement marketing strategies	<p>3.1 Brief those involved in the marketing effort on their roles and responsibilities, to ensure success of marketing strategies</p> <p>3.2 Plan and implement marketing activities, in accordance with marketing objectives and budgetary requirements</p> <p>3.3 Consider digital devices, platforms and technologies for effectiveness in implementing marketing activities</p>
4. Monitor and improve marketing performance	<p>4.1 Monitor marketing activities and evaluate business performance according to objectives and targets of the business plan</p> <p>4.2 Analyse performance gaps and take corrective action or set new targets</p> <p>4.3 Encourage all relevant people to propose ways to improve marketing performance</p> <p>4.4 Seek and analyse customer reaction to all aspects of the marketing mix, using culturally appropriate processes, to improve targeting and outcomes</p> <p>4.5 Conduct ongoing research of customer requirements and expectations in both on-line and off-line environments to identify opportunities for change and improvement</p> <p>4.6 Identify and respond to opportunities to aid business development through new technologies and different ways of</p>

ELEMENT	PERFORMANCE CRITERIA
	marketing

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.2-2.4, 3.2, 4.1, 4.4, 4.6	<ul style="list-style-type: none"> Identifies, analyses and evaluates complex information from a range of sources
Writing	1.3, 2.3, 2.5, 3.1, 3.2, 4.4-4.6	<ul style="list-style-type: none"> Prepares reports and other workplace documentation using structure, layout and terminology appropriate to the audience
Oral Communication	1.3, 3.1, 4.3, 4.4	<ul style="list-style-type: none"> Presents ideas and requirements clearly and using language and non-verbal techniques appropriate to audience and environment Uses questioning and listening to check and confirm understanding
Numeracy	2.1, 2.2, 3.2, 4.2	<ul style="list-style-type: none"> Analyses numerical information to determine budgetary requirements and product quantities Uses a range of calculation methods to evaluate costs and benefits
Navigate the world of work	4.5	<ul style="list-style-type: none"> Regularly reviews current situation and develops strategies to address improvements in marketing performance
Interact with others	4.3	<ul style="list-style-type: none"> Recognises importance of building rapport to establish effective working relationships
Get the work done	1.1-1.3, 2.1-2.5, 3.2, 4.1, 4.2	<ul style="list-style-type: none"> Takes responsibility for planning and organising own workload, identifying ways of sequencing and combining elements for greater efficiency Implements actions as per plan, making slight adjustments if necessary and addressing some unexpected issues Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account Identifies concepts, principles and features of approaches in use in other contexts, and redesigns

		<p>these to suit own situation</p> <ul style="list-style-type: none"> • Uses formal and informal processes to monitor implementation of solutions and reflect on outcomes
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB403 Market the small business Release 2	BSBSMB403 Market the small business Release 1	Updated to clarify intent	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBSMB403 Market the small business

Modification History

Release	Comments
Release 2	This version first released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- determine marketing activity focus in line with objectives of the business plan
- evaluate customer base
- understand what is ethically and culturally appropriate
- determine a marketing mix according to market and business needs, including:
 - ability to optimise sales and profit
 - ability to evaluate costs and benefits
 - determine customer needs and promotional activities
- determine marketing strategies, including briefing appropriate personnel on their responsibilities
- identify marketing opportunities in the digital environment
- develop approaches to engage, respond and monitor customers in the digital space
- monitor and evaluate activities and performance, and correct performance gaps
- consult and communicate effectively with relevant people
- research and monitor ongoing changes and improvements.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- discuss industry market trends
- identify performance evaluation methods
- explain methods of analysing costs and benefits of marketing strategies
- summarise methods of developing marketing objectives and marketing mix
- compare current digital devices, platforms and technologies for effectiveness in achieving marketing objectives
- outline methods of monitoring customer satisfaction
- identify relevant market analysis and research
- provide a detailed explanation of relevant marketing concepts and methods.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- business technology
- software for analysis of data
- workplace documents and case studies or where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBSMB404 Undertake small business planning

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to research and develop an integrated business plan for achieving business goals and objectives.

It applies to individuals who operate a small business that operates independently, or as part of a larger organisation. Individuals in this role interpret business information and numerical data competently.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Small and Micro Business

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify elements of the business plan	1.1 Identify purpose of the business plan 1.2 Identify and review essential components of the business plan 1.3 Identify and document business goals and objectives as a basis for measuring business performance

ELEMENT	PERFORMANCE CRITERIA
2. Develop a business plan	2.1 Research resources, legal and compliance requirements, specifically in relation to work health and safety (WHS), in accordance with business goals and objectives 2.2 Research market needs, and market size and potential 2.3 Identify sources and costs of finance, from financial plan, to provide required liquidity and profitability for the business 2.4 Identify methods, from marketing strategies, to promote market exposure of the business 2.5 Identify methods or means of production or operation from production or operations plan to conform with business goals and objectives 2.6 Identify staffing requirements to effectively produce or deliver products and services 2.7 Identify, assess and prioritise internal and external risks 2.8 Identify specialist services and sources of advice, where required, and cost in accordance with available resources
3. Develop strategies for minimising risks	3.1 Identify specific interests and objectives of relevant people and seek and confirm their support of planned business direction 3.2 Identify and develop risk management strategies according to business goals and objectives, and relevant legal requirements 3.3 Develop a contingency plan to address possible areas of non-conformance with the plan

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.1-2.7, 3.1, 3.2	<ul style="list-style-type: none"> Identifies, analyses and evaluates complex workplace documentation during planning process
Writing	1.3, 2.3-2.7, 3.1-3.3	<ul style="list-style-type: none"> Prepares written reports and workplace documentation that communicate complex information clearly and effectively
Oral	1.1, 3.1	<ul style="list-style-type: none"> Articulates ideas and requirements clearly and

Communication		creatively based on techniques appropriate to assess business performance
Numeracy	2.2, 2.3, 2.5-2.7	<ul style="list-style-type: none"> Interprets numerical information to determine prospective markets, resource allocations and business profits/losses
Navigate the world of work	2.1, 3.2	<ul style="list-style-type: none"> Appreciates implications of legal and regulatory responsibilities related to own work
Interact with others	3.1	<ul style="list-style-type: none"> Looks for strengths in others, finding ways of working with and building on these and sharing own knowledge and experience freely
Get the work done	1.1, 1.2, 2.1-2.7, 3.2, 3.3	<ul style="list-style-type: none"> Uses a combination of formal, logical planning processes and an increasingly intuitive understanding of context to identify relevant information and to evaluate alternative strategies Implements actions as per plan, making slight adjustments if necessary, and addressing some unexpected issues Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account Identifies concepts, principles and features of approaches in use in other contexts, and redesigns these to suit own situation Uses formal and informal processes to monitor implementation of solutions and reflect on outcomes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB404 Undertake small business planning Release 2	BSBSMB404 Undertake small business planning Release 1	Updated to clarify intent	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBSMB404 Undertake small business planning

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- develop a business plan which provides for finance, marketing and provision of products or services to facilitate all business goals and objectives
- identify and plan all work health and safety (WHS) and duty of care responsibilities
- identify and assess internal and external risks to the business
- develop risk management strategies including a contingency plan for non-conformance.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- discuss all government legislative requirements relating to business operation, especially in regard to WHS and environmental issues, equal employment opportunity, industrial relations and anti-discrimination
- explain methods of evaluation
- summarise WHS responsibilities and procedures for identifying hazards relevant to the business
- outline planning processes
- describe preparation of a business plan
- identify principles of risk management relevant to small business planning
- outline common risks particular to the small business type or industry
- explain reasons for, and benefits of, business planning

- clarify relevant industry codes of practice
- outline setting goals and objectives
- explain types of business planning – feasibility studies; strategic, operational, financial and marketing planning.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- business equipment and resources
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBSMB405 Monitor and manage small business operations

Modification History

Release	Comments
Release 3	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 2	This version first released with BSB Business Services Training Package Version 1.1. Version created to correct mapping table information
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to implement a business plan and modify operations as required.

It applies to individuals who operate a small business which stands alone, or is part of a department within a larger organisation. Individuals in this role use problem-solving skills and take responsibility for developing approaches to manage business operations.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Small and Micro Business

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the</i>	<i>Performance criteria describe the performance needed to</i>

ELEMENT	PERFORMANCE CRITERIA
<i>essential outcomes.</i>	<i>demonstrate achievement of the element.</i>
1. Develop operational strategies and procedures	1.1 Develop an action plan to provide a clear and coherent direction, in accordance with business goals and objectives 1.2 Identify work health and safety (WHS) and environmental issues, and implement strategies to minimise risk factors 1.3 Develop a quality system for the business in line with industry standards, compliance requirements and cultural criteria 1.4 Develop performance measures and operational targets to conform with the business plan 1.5 Develop strategies for innovation, including utilisation of existing, new or emerging technologies, where practicable, to optimise business performance
2. Implement operational strategies and procedures	2.1 Implement systems and key performance indicators or targets to monitor business performance and customer satisfaction 2.2 Implement systems to control stock, expenditure or cost, wastage or shrinkage and risks to health and safety in accordance with the business plan 2.3 Maintain staffing requirements, where applicable, within budget, to maximise productivity 2.4 Carry out provision of goods or services in accordance with established legal, ethical cultural and technical standards 2.5 Provide goods or services in accordance with time, cost and quality specifications, and customer requirements 2.6 Apply quality procedures to address product or service and customer requirements
3. Monitor business performance	3.1 Regularly monitor and review achievement of operational targets to ensure optimum business performance, in accordance with business plan goals and objectives 3.2 Review systems and structures, with a view to more effectively supporting business performance 3.3 Investigate and analyse operating problems to establish causes and implement changes as required, as part of the business quality system 3.4 Amend operational policies and procedures to incorporate corrective action
4. Review business operations	4.1 Review and adjust business plan, as required, to maintain business viability, in accordance with business goals and

ELEMENT	PERFORMANCE CRITERIA
	<p>objectives</p> <p>4.2 Clearly record proposed changes to aid future planning and evaluation</p> <p>4.3 Undertake ongoing research into new business opportunities and adjust business goals and objectives as new business opportunities arise</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.3, 1.5, 2.1, 2.2, 2.4, 2.5, 3.1, 4.1	<ul style="list-style-type: none"> Evaluates complex text to determine legislative, regulatory and workplace documentation
Writing	1.1, 1.3-1.5, 3.2, 3.4, 4.1, 4.2	<ul style="list-style-type: none"> Prepares written reports and workplace documentation that communicate complex information clearly and effectively
Oral Communication	3.2	<ul style="list-style-type: none"> Articulates clearly using specific and relevant language suitable to audience to convey requirements, and employs listening and questioning techniques to confirm understanding
Numeracy	2.2, 2.3, 2.5	<ul style="list-style-type: none"> Interprets numerical information to manage performance information and regulate cash flow
Navigate the world of work	1.1-1.3, 2.2, 2.4, 4.1	<ul style="list-style-type: none"> Monitors adherence to organisational policies and procedures and considers own role for its contribution to broader goals of the work environment Appreciates implications of legal and regulatory responsibilities related to own work with specific reference to safety
Get the work done	1.1, 1.3-1.5, 2.1-2.3, 2.5, 2.6, 3.1-3.3, 4.1, 4.3	<ul style="list-style-type: none"> Reflects on how digital systems and tools are used or could be used to achieve work goals, and begins to recognise strategic and operational applications Identifies concepts, principles and features of approaches in use in other contexts and considers how these may suit own situation Develops plans to manage relatively complex, non-routine tasks with an awareness of how they may

		<p>contribute to longer-term operational and strategic goals</p> <ul style="list-style-type: none"> • Uses each experience to reflect on how variables impact decision outcomes, and to gain insights into what constitutes 'good' judgement and an effective decision in different contexts • Recognises and addresses some unfamiliar problems of increasing complexity within own scope
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB405 Monitor and manage small business operations Release 3	BSBSMB405 Monitor and manage small business operations Release 2	Updated to clarify intent	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBSMB405 Monitor and manage small business operations

Modification History

Release	Comments
Release 3	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 2	This version first released with BSB Business Services Training Package Version 1.1. Version created to correct mapping table information
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- develop strategies and procedures to successfully manage business operations, including:
 - developing an action plan
 - identifying risk management procedures
 - developing a quality system
 - implementing performance measures
 - utilising technologies to optimise business performance
- implement and monitor strategies and procedures developed, including:
 - analysing and correcting business problems
 - reviewing and adjusting the business plan
- record and research business improvements
- make appropriate adjustments to business operations as required.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- summarise relevant industry codes of practice
- explain methods for implementing operation and revenue control systems
- summarise methods for monitoring performance and implementing improvements
- outline work health and safety (WHS) responsibilities and procedures for managing hazards
- identify relevant principles of risk management, including risk assessment
- clarify quality system principles and methods
- summarise relevant performance measures
- discuss role of innovation
- outline systems to manage staff, stock, expenditure, services and customer service
- identify technical or specialist skills relevant to business operations.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- business equipment and resources
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBSMB406 Manage small business finances

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to implement and review financial management strategies on a regular basis.

It applies to individuals who operate a small business that stands alone, or is part of a department within a larger organisation. Individuals in this role interpret financial reports and other numerical data to develop financial management strategies.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Small and Micro Business

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Implement financial plan	1.1 Identify financial information requirements and obtain specialist services, as required, to profitably operate the business in accordance with the business plan 1.2 Produce financial budgets or projections, including cash flow

ELEMENT	PERFORMANCE CRITERIA
	<p>estimates, as required for each forward period, and distribute to relevant people in accordance with legal requirements</p> <p>1.3 Negotiate, secure and manage business capital to best enable implementation of the business plan and to meet requirements of financial backers</p> <p>1.4 Develop and maintain strategies to enable adequate financial provision for taxation in accordance with legal requirements</p> <p>1.5 Develop, monitor and maintain client credit policies, including contingencies for debtors in default, to maximise cash flow</p> <p>1.6 Select key performance indicators to enable ongoing monitoring of financial performance</p> <p>1.7 Record and communicate financial procedures to relevant people to facilitate implementation of the business plan</p>
2. Monitor financial performance	<p>2.1 Regularly monitor and report on financial performance targets, and analyse data to establish extent to which the financial plan has been met</p> <p>2.2 Monitor marketing and operational strategies for their effects on the financial plan</p> <p>2.3 Calculate and evaluate financial ratios according to own or industry benchmarks</p> <p>2.4 Assess financial plan to determine whether variations or alternative plans are needed, and change as required</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.4, 2.1, 2.4	<ul style="list-style-type: none"> Evaluates complex text to determine legislative, regulatory and workplace documentation
Writing	1.2-1.5, 1.7, 2.1	<ul style="list-style-type: none"> Prepares written reports and workplace documentation that communicate complex information clearly and effectively
Oral Communication	1.3, 1.7, 2.1	<ul style="list-style-type: none"> Articulates clearly using specific and relevant language suitable to audience to convey requirements, and employs listening and questioning techniques to

		confirm understanding <ul style="list-style-type: none"> Participates in verbal negotiations using tone and language suitable to audience
Numeracy	1.1-1.5, 2.1, 2.3, 2.4	<ul style="list-style-type: none"> Interprets numerical information to calculate all relevant financial information
Navigate the world of work	1.2, 1.4	<ul style="list-style-type: none"> Appreciates implications of legal and regulatory responsibilities related to own work
Interact with others	1.7, 2.1	<ul style="list-style-type: none"> Selects appropriate form, channel and mode of communication for a specific purpose relevant to own role
Get the work done	1.1, 1.2, 1.4-1.6, 2.2, 2.4	<ul style="list-style-type: none"> Develops plans to manage relatively complex, non-routine tasks with an awareness of how they may contribute to longer-term operational and strategic goals Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account Uses formal and informal processes to monitor implementation of ideas and reflect on outcomes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB406 Manage small business finances Release 2	BSBSMB406 Manage small business finances Release 1	Updated to clarify intent	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBSMB406 Manage small business finances

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- operate the business according to the business plan, including:
 - adhering to legal requirements
 - meeting requirements of financial backers
 - defining strategies for debt collection and contingencies for debtors
 - managing cash flow
 - defining key performance indicators
 - communicating with relevant people
- monitor the business against financial plan and make changes as required.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- discuss benchmarking
- explain financial decision-making relevant to the business
- summarise significant financial indicators
- outline purposes of financial reports
- clarify preparation and interpretation of budget/actual reports
- identify principles for preparing balance sheets and their interpretation
- outline debt collection procedures or strategies

- characterise principles for preparing profit and loss statements and their interpretation
- discuss stock records and stock control relevant to the business.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- business equipment and resources
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBSMB407 Manage a small team

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to select, induct, train and develop staff members to enhance business operations within the parameters of all relevant legislative requirements.

It applies to individuals who operate a small business that stands alone, or is part of a department within a larger organisation. Individuals in this role have a good knowledge of industrial relations and team management and use effective, responsive and supportive communication in workplace interactions.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Management and Leadership – Small and Micro Business

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop staffing plan	1.1 Determine staffing requirements to allow the business to run effectively, in accordance with requirements outlined in the

ELEMENT	PERFORMANCE CRITERIA
	<p>business plan</p> <p>1.2 Identify and compare existing skills of owner/s and staff with business requirements to identify any gaps</p> <p>1.3 Develop policies and procedures for owner/s and staff, in accordance with the business plan</p>
2. Recruit, induct, train and retain team	<p>2.1 Develop job or position descriptions, competencies required and selection criteria to meet business' needs</p> <p>2.2 Judge information obtained from each candidate against specified selection criteria, and select according to business needs and legal requirements</p> <p>2.3 Induct new staff members in accordance with policies and procedures of the business</p> <p>2.4 Make team members aware of their responsibilities and performance requirements as soon as practicable, and take opportunities to coach team members who are unfamiliar with procedures of the business</p> <p>2.5 Develop and implement a staff development program and career paths based on requirements of business and staff competencies</p> <p>2.6 Advertise staff vacancies appropriately in accordance with staffing plan</p>
3. Comply with industrial relations obligations	<p>3.1 Clarify workplace rights and obligations of employers and employees, in accordance with legal requirements and codes of practice</p> <p>3.2 Counsel staff, if required, in a positive and constructive manner and record outcomes accurately</p>
4. Maintain staff records	<p>4.1 Develop staff records system to provide timely and accurate information, in accordance with confidentiality, legal and taxation requirements</p> <p>4.2 Monitor and accurately maintain system for recording and retrieving personnel and payroll information, and seek specialist advice where required</p>
5. Manage staff	<p>5.1 Regularly review contribution and skills of self and other team members to ensure performance is in line with agreed performance measures</p> <p>5.2 Monitor and adjust staffing requirements to respond to any changes in tasks and functions required by the business</p> <p>5.3 Support and encourage staff, and acknowledge and reward</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>their contribution</p> <p>5.4 Regularly provide opportunities for staff to discuss work related issues</p> <p>5.5 Develop contingency plans to cope with unexpected or extreme situations and take appropriate corrective action as required</p>
6. Review team performance	<p>6.1 Develop positive and constructive relationships with and between team members</p> <p>6.2 Review and update team objectives in support of business goals on a regular basis in consultation with team members</p> <p>6.3 Identify strengths and weaknesses of team against current and expected work requirements</p> <p>6.4 Schedule time, on a regular basis, for team members to review work operations to maintain and improve operational efficiency</p> <p>6.5 Encourage team members to monitor their own performance, suggest improvements and identify professional development needs, in accordance with personal and business requirements</p> <p>6.6 Monitor and review staff turnover rate</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.2, 2.3, 2.5, 2.6, 3.1, 4.1, 5.1, 6.3, 6.5, 6.6	<ul style="list-style-type: none"> Evaluates complex text to determine legislative, regulatory and workplace documentation
Writing	1.3, 2.1-2.6, 3.1, 3.2, 4.1, 4.2, 5.5, 6.1-6.3, 6.5	<ul style="list-style-type: none"> Prepares written reports and workplace documentation that communicate complex information clearly and effectively
Oral Communication	1.2, 2.2-2.4, 3.1, 3.2, 4.2, 5.3, 5.4, 6.1, 6.2, 6.4, 6.5	<ul style="list-style-type: none"> Articulates clearly using specific and relevant language suitable to audience to convey requirements, and employs listening and questioning techniques to confirm understanding Participates in verbal negotiations and coaching using tone and language suitable to audience

Numeracy	6.4	<ul style="list-style-type: none"> • Uses basic mathematical formulas to review staff performances within available work schedules
Navigate the world of work	1.3, 2.2, 3.1, 4.1	<ul style="list-style-type: none"> • Understands own legal rights and responsibilities and is extending understanding of general legal principles across work contexts • Monitors adherence to organisational policies and procedures and considers own role for its contribution to broader goals of the work environment
Interact with others	2.4, 2.6, 5.3, 6.1, 6.5	<ul style="list-style-type: none"> • Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group interaction, influencing direction and taking a leadership role on occasion • Looks for ways of establishing connections and building genuine understanding with a diverse range of people • Actively identifies important communication exchanges, selecting appropriate channels, format, tone and context to suit purpose and audience, and monitors impact
Get the work done	1.1, 1.2, 2.2, 2.3, 2.5, 4.2, 5.1, 5.2, 5.5, 6.3, 6.6	<ul style="list-style-type: none"> • Uses digital technologies and systems safely, legally and ethically when gathering, storing, accessing and sharing information • Develops plans to manage relatively complex, non-routine tasks with an awareness of how they may contribute to longer-term operational and strategic goals • Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account • Uses formal and informal processes to monitor implementation of ideas and reflect on outcomes • Recognises and anticipates an increasing range of familiar problems, their symptoms and causes, actively looking for early warning signs and implementing contingency plans

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB407 Manage a small team Release 2	BSBSMB407 Manage a small	Updated to clarify intent	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
	team Release 1		

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBSMB407 Manage a small team

Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- use the business plan to:
 - determine staffing requirements
 - coordinate skill-gap training where required
 - develop human resource policies and procedures
- develop job descriptions and selection criteria
- determine induction processes
- implement staff development program
- adhere to legal requirements and codes of practice
- develop staff records system
- conduct ongoing performance measures
- communicate effectively with staff members
- develop contingency plans
- develop strategies to review team performance
- monitor and review staff.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- discuss all government legislative requirements relating to staffing the business operation

- explain work health and safety (WHS) responsibilities and procedures for managing hazards
- summarise relevant industry awards or enterprise agreements
- outline staff development pathways
- identify training course options for staff development
- summarise staff counselling, grievance and disciplinary procedures
- identify unfair dismissal legislation and procedures.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- business equipment and resources
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBSUS401 Implement and monitor environmentally sustainable work practices

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 2.0. Version created to better align unit to AQF level.

Application

This unit describes the skills and knowledge required to effectively analyse the workplace in relation to environmentally sustainable work practices and to implement improvements and monitor their effectiveness.

It applies to individuals with responsibility for a specific area of work or who lead a work group or team and addresses the knowledge, processes and techniques necessary to implement and monitor environmentally sustainable work practices, including the development of processes and tools.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Industry Capability – Sustainability

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Investigate current practices in relation to resource usage	1.1 Identify environmental regulations applying to the enterprise 1.2 Analyse procedures for assessing compliance with

ELEMENT	PERFORMANCE CRITERIA
	environmental/sustainability regulations 1.3 Collect information on environmental and resource efficiency systems and procedures, and provide to the work group where appropriate 1.4 Collect, analyse and organise information from a range of sources to provide information/advice and tools/resources for improvement opportunities 1.5 Measure and document current resource usage of members of the work group 1.6 Analyse and document current purchasing strategies 1.7 Analyse current work processes to access information and data to assist in identifying areas for improvement
2. Set targets for improvements	2.1 Seek input from stakeholders, key personnel and specialists 2.2 Access external sources of information and data as required 2.3 Evaluate alternative solutions to workplace environmental issues 2.4 Set efficiency targets
3. Implement performance improvement strategies	3.1 Source and use appropriate techniques and tools to assist in achieving efficiency targets 3.2 Apply continuous improvement strategies to own work area of responsibility, including ideas and possible solutions to communicate to the work group and management 3.3 Implement and integrate environmental and resource efficiency improvement plans for own work group with other operational activities 3.4 Supervise and support team members to identify possible areas for improved practices and resource efficiency in work area 3.5 Seek suggestions and ideas about environmental and resource efficiency management from stakeholders and act upon where appropriate 3.6 Implement costing strategies to fully utilise environmental assets
4. Monitor performance	4.1 Use and/or develop evaluation and monitoring, tools and technology 4.2 Document and communicate outcomes to report on efficiency targets to key personnel and stakeholders 4.3 Evaluate strategies and improvement plans 4.4 Set new efficiency targets, and investigate and apply new tools

ELEMENT	PERFORMANCE CRITERIA
	and strategies 4.5 Promote successful strategies and reward participants where possible

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.4, 1.6, 1.7, 2.3, 3.1	<ul style="list-style-type: none"> Identifies and analyses complex texts to determine legislative, regulatory and business requirements Reviews reported information to evaluate workplace strategies and improvement practices
Writing	1.5, 1.6, 2.1, 2.2, 2.4, 3.1-3.3, 4.4, 4.5	<ul style="list-style-type: none"> Documents findings of investigations from written and oral sources according to organisational requirements Provides updates about progress using formats and language appropriate to the audience and context
Oral Communication	2.1, 2.2, 3.3-3.5, 4.4, 4.5	<ul style="list-style-type: none"> Presents information and seeks advice using structure and language appropriate to audience Participates in discussions using listening and questioning to elicit the views of others and to clarify or confirm understanding
Numeracy	1.5, 2.4, 3.1, 3.6, 4.4	<ul style="list-style-type: none"> Analyses numerical information to measure usage and calculates metric measurements, quantities/ratios and financial data using appropriate tools
Navigate the world of work	1.1, 1.2	<ul style="list-style-type: none"> Recognises and follows legislative requirements and organisational policies and procedures associated with own role
Interact with others	1.3, 2.1, 2.2, 3.3-3.5, 4.2, 4.4, 4.5	<ul style="list-style-type: none"> Selects and uses appropriate conventions and protocols when communicating with internal and external stakeholders to seek or share information Collaborates and consults with a range of stakeholders to achieve shared understanding of individual roles in meeting objectives
Get the work done	1.2, 1.4-1.7, 2.3, 2.4, 3.1, 3.2, 3.3, 3.5, 3.6, 4.1, 4.3, 4.4	<ul style="list-style-type: none"> Develops plans to manage routine and non-routine tasks for own work group with an awareness of how they contribute to the broader organisation Uses systematic, analytical processes to set

		<p>environmental targets, gather relevant information, identify and evaluate alternative approaches</p> <ul style="list-style-type: none"> • Evaluates outcomes of decisions to identify opportunities for improvement • Uses the main features and functions of digital tools to complete work tasks and access information
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSUS401 Implement and monitor environmentally sustainable work practices	BSBSUS301 Implement and monitor environmentally sustainable work practices	Recoded to meet AQF standards	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBSUS401 Implement and monitor environmentally sustainable work practices

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 2.0. Version created to better align unit to AQF level.

Performance Evidence

Evidence of the ability to:

- analyse information from a range of sources to identify current procedures, practices and compliance requirements in relation to environmental and resource sustainability
- consult and communicate with relevant stakeholders to seek input and encourage engagement with developing and implementing sustainability improvements, encourage feedback and suggestions and report on outcomes
- plan and organise work group activities to:
 - measure current resource usage
 - solve problems and generate ideas for improvements
 - evaluate and implement strategies to improve resource usage
 - plan, implement and integrate improvements into operations
 - meet environmental requirements
- apply continuous improvement approach to sustainability performance
- apply change management techniques to support sustainability performance.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify relevant internal and external sources of information and explain how they can be used to identify sustainability improvements

- explain the compliance requirements for the work area with reference to legislation, regulations, codes of practice and workplace procedures that relate to environmental and resource issues
- outline common environmental and energy efficiency issues within the industry
- give examples of benchmarks for environmental and resource sustainability that are relevant to the organisation
- outline organisational systems and procedures that relate to environmental and resource sustainability improvements including:
 - supply chain, procurement and purchasing
 - quality assurance
 - making recommendations and seeking approvals

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the sustainability field of work and include access to:

- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or, where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBWHS302 Apply knowledge of WHS legislation in the workplace

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to understand and comply with work health and safety (WHS) Acts, regulations and codes of practice in the workplace.

This unit applies to individuals who contribute to actions to achieve compliance with WHS legislation as part of their WHS responsibilities, which are in addition to their main duties.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the National Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Regulation, Licensing and Risk – Work Health and Safety

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine the legal framework for WHS in	1.1 Identify and access current WHS legislation and related documentation relevant to the workplace, occupation and industry

ELEMENT	PERFORMANCE CRITERIA
the workplace	<p>1.2 Apply knowledge of the relationship between WHS Acts, regulations and codes of practice to assist in identifying WHS legislative requirements in the workplace</p> <p>1.3 Identify duty holders</p> <p>1.4 Identify legal obligations and duties for who to consult with regarding training of workers and health and safety representatives</p> <p>1.5 Identify consequences of non-compliance with WHS Acts, regulations, codes of practice, standards and organisational WHS policies, procedures, processes and systems</p>
2. Contribute to activity that reflects WHS legislative requirements	<p>2.1 Contribute to monitoring compliance with legislation</p> <p>2.2 Contribute to ensuring that workplace complies with legislation</p> <p>2.3 Identify and take appropriate action on non-compliance with legislation</p> <p>2.4 Recognise limits of own expertise and legal duties, and access help and advice when required</p>
3. Keep up-to-date with legislation and relevant publications	<p>3.1 Use relevant sources to keep up-to-date with legislation and relevant publications</p> <p>3.2 Communicate information on relevant legislative changes and relevant publications to others</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Learning	3.1	<ul style="list-style-type: none"> Identifies and evaluates information from formal and informal sources to update knowledge
Reading	1.1-1.5, 3.1	<ul style="list-style-type: none"> Interprets a range of textual information to determine regulatory and procedural requirements and necessary actions
Writing	2.3, 3.2	<ul style="list-style-type: none"> Documents WHS information in a sequential manner using required format, correct grammar and industry specific language
Oral	2.1, 2.2, 2.3, 3.2	<ul style="list-style-type: none"> Provides information or advice using language appropriate to audience

communication		<ul style="list-style-type: none"> • Uses listening and questioning to clarify and confirm understanding
Navigate the world of work	2.1- 2.3, 3.1	<ul style="list-style-type: none"> • Follows policies, procedures and legislative requirements relevant to own role • Keeps up to date on changes to legislation or regulations relevant to own role
Interact with others	2.4, 3.2	<ul style="list-style-type: none"> • Selects appropriate communication protocols and conventions to provide or seek information
Get the work done	1.1-1.5, 2.3, 3.1	<ul style="list-style-type: none"> • Plans, sequences and prioritises tasks and activities to support compliance with WHS regulatory requirements • Initiates standard procedures in response to non-compliance issues, requesting assistance if necessary • Uses the main features and functions of digital tools to complete work tasks and access information

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWHS302 Apply knowledge of WHS legislation in the workplace	BSBWHS302A Apply knowledge of WHS legislation in the workplace	<p>Updated to meet Standards for Training Packages</p> <p>Minor edits to clarify intent of performance criteria</p>	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBWHS302 Apply knowledge of WHS legislation in the workplace

Modification History

Release	Comments
Version 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- identify and apply work health and safety (WHS) legislative requirements applicable to the workplace, occupation and industry, including keeping up to date with legislation and relevant publications
- identify and act on non-compliances with WHS legislation
- identify duty holders
- communicate WHS information to others
- refer issues of non-compliance to responsible persons or authorities and seek advice from appropriate sources.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain the WHS legislative duties of self and others including limits on own expertise
- outline the key organisational WHS policies, procedures, processes and systems
- outline the key requirements in relevant commonwealth and state or territory WHS Acts, regulations, codes of practice, standards and guidance material, and other relevant publications
- identify obligations and duties for consultation and who must be consulted
- identify people who could be accessed for help
- identify the consequences of non-compliance
- explain ways to get information about compliance with legislation.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced by individuals carrying out work health and safety duties in the workplace and include access to:

- organisational policies, standard operating procedures, procedures and plans with information on compliance requirements
- relevant Acts, regulations, codes of practice, licensing requirements and standards
- guidance materials and alerts issued by the relevant WHS regulator
- relevant WHS data files
- appropriate office equipment and resources.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBWHS404 Contribute to WHS hazard identification, risk assessment and risk control

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to contribute to the processes of identifying work health and safety (WHS) hazards, assessing WHS risks, and developing, implementing and evaluating risk controls according to legislative and organisational requirements.

It applies to individuals who contribute to WHS risk management processes in their work role in a range of industry and workplace contexts.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Regulation, Licensing and Risk – Work Health and Safety

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Access information to	1.1 Identify sources of information and data

ELEMENT	PERFORMANCE CRITERIA
identify hazards and assess and control risks	<p>1.2 Obtain information and data to determine the nature and scope of workplace hazards, the range of harms they may cause and how these harms are caused</p> <p>1.3 Obtain information and data to determine the nature and scope of workplace risks and risk controls</p>
2 Contribute to compliance and workplace requirements	<p>2.1 Contribute to identifying and complying with requirements of workplace policies, procedures, processes and systems for hazard identification, risk assessment and risk control activities</p> <p>2.2 Contribute to identifying and complying with requirements of WHS Acts, regulations, codes of practice and guidelines for hazard identification, risk assessment and risk control activities</p> <p>2.3 Identify duty holders and their range of duties</p>
3 Contribute to workplace hazard identification	<p>3.1 Use knowledge of hazards to advise individuals and parties of workplace hazards, the harms they may cause and how these harms are caused</p> <p>3.2 Apply knowledge of hazard identification to contribute to selecting techniques, tools and processes to identify workplace hazards</p> <p>3.3 Contribute to applying selected techniques, tools and processes</p> <p>3.4 Contribute to documenting hazard identification process and results</p>
4 Contribute to WHS risk assessment	<p>4.1 Apply knowledge of risk assessment to contribute to selecting techniques, tools and processes for risk assessment of hazards</p> <p>4.2 Contribute to applying techniques, tools and processes to identified hazards</p> <p>4.3 Contribute to documenting the results of risk assessments</p>
5 Contribute to the development, implementation and evaluation of risk control	<p>5.1 Apply knowledge of risk control to contribute to developing risk control options for identified hazards, using the results of risk assessments</p> <p>5.2 Contribute to developing and implementing a risk control plan</p> <p>5.3 Contribute to evaluating implemented risk controls</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 1.3, 2.1, 2.3, 3.2, 3.4, 4.1, 5.1, 5.2	<ul style="list-style-type: none"> Locates, interprets and analyses complex WHS legislative and organisational texts
Writing	3.1, 3.4, 4.3, 5.1, 5.2, 5.3	<ul style="list-style-type: none"> Uses structure, layout and language suitable for audience to document WHS risk-management processes Uses appropriate organisational formats and industry specific vocabulary to document risk control plans
Oral communication	2.1, 2.2, 3.1, 3.3, 4.2	<ul style="list-style-type: none"> Uses structure and language suitable for audience to communicate information and contribute ideas about WHS risk-management processes
Navigate the world of work	2.1, 2.2, 2.3	<ul style="list-style-type: none"> Takes responsibility for adherence to legal and regulatory responsibilities and organisational policies and procedures in relation to WHS risk-management processes Keeps up to date with WHS legislation or regulations and related organisational policies and procedures
Interact with others	2.1, 2.2, 3.1, 3.3, 4.1, 4.2, 5.1, 5.2, 5.3	<ul style="list-style-type: none"> Understands what to communicate, with whom and how in the context of advising on hazards and harms Cooperates with others as part of WHS risk-management processes, and contributes to specific activities requiring joint responsibility and accountability Collaborates with others to achieve individual and team outcomes
Get the work done	2.1, 2.2, 3.2, 4.1, 5.2, 5.3	<ul style="list-style-type: none"> Applies formal processes to plan, sequence and prioritise risk control tasks, showing awareness of time and resource constraints and the needs of others Uses formal decision-making processes in risk management processes, setting or clarifying goals, gathering information and identifying and evaluating choices against a set of criteria Applies formal problem-solving processes, identifying and evaluating several options for action Uses formal and informal processes to monitor and reflect on outcomes of decisions

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWHS404 Contribute to WHS hazard identification, risk assessment and risk control	BSBWHS404A Contribute to WHS hazard identification, risk assessment and risk control	Updated to meet Standards for Training Packages Minor edits to clarify Performance Criteria	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBWHS404 Contribute to WHS hazard identification, risk assessment and risk control

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- identify and interpret information and data about work health and safety (WHS) requirements and apply it to the selection and application of techniques, tools and processes for hazard identification, risk assessment and risk control and the development of a risk control plan
- contribute to documenting and evaluating risk management processes
- communicate about WHS requirements and compliance with a range of people
- comply with WHS requirements for hazard identification, risk assessment and risk control activities
- identify WHS duty holders and their duties.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the WHS risk management (hazard identification, risk assessment and risk control) requirements specified in:
 - relevant WHS Acts and regulations
 - organisational WHS policies, procedures, processes and systems
- explain the difference between hazards and risks in the work context
- outline a range of common workplace hazards, the harms they may cause and how these harms are caused
- explain how risk assessment and controls can eliminate or minimise risks
- identify internal and external sources of WHS information and data and how to access them.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced by individuals carrying out work health and safety duties in the workplace and include access to:

- office equipment and resources
- relevant legislation, standards and guidelines
- relevant policies, procedures, processes and systems
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBWHS503 Contribute to the systematic management of WHS risk

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to contribute to the systematic management of work health and safety (WHS) risk.

It applies to individuals who provide specialised knowledge, systematic approaches and guidance to a range of personnel.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the National Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Regulation, Licensing and Risk – Work Health and Safety

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Access information and data to contribute to the	1.1 Identify sources of information and data 1.2 Obtain information and data to determine the purposes,

ELEMENT	PERFORMANCE CRITERIA
systematic management of WHS risk	objectives, principles and framework of a systematic approach to managing WHS risk
2 Contribute to effective consultation and participation during all stages of risk management	2.1 Identify individuals and parties who need to participate and be consulted 2.2 Apply knowledge of effective consultation and participation to contribute to ensuring effective consultation and participation processes occur
3 Contribute to establishing the context for risk management	3.1 Apply knowledge of WHS legislation to identify duty holders and legislative requirements for WHS risk management 3.2 Identify individuals and parties impacting on risk management 3.3 Apply knowledge of organisation to identify factors that will impact on risk control 3.4 Contribute to establishing the context of the risk management process 3.5 Contribute to defining risk criteria
4 Contribute to risk assessment	4.1 Apply knowledge of workplace hazards and risks to contribute to risk identification 4.2 Apply knowledge of WHS legislation, risk assessment and workplace WHS information and data to contribute to risk analysis and evaluation
5 Contribute to risk treatment	5.1 Apply knowledge of WHS hazard and risk control, and WHS legislation to contribute to the selection of risk treatment options 5.2 Apply knowledge of the organisation's WHS management system (WHSMS) and WHS information system (WHSIS) to prepare and implement risk treatment/s
6 Contribute to monitoring, reviewing and recording risk management process	6.1 Apply knowledge of the organisation's WHSMS to contribute to monitoring and reviewing risk management processes 6.2 Apply knowledge of the organisation's WHSIS to contribute to recording risk management process

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 2.1, 3.1,	<ul style="list-style-type: none"> Organises, evaluates and integrates information from a range of sources to determine requirements
Writing	2.2, 3.4, 3.5, 4.2, 5.2, 6.2	<ul style="list-style-type: none"> Records results of investigations using clear and comprehensible language and layout Creates a range of formal texts using industry language appropriate to audience and environment
Oral Communication	2.2, 3.4, 3.5, 4.2	<ul style="list-style-type: none"> Uses listening and questioning techniques to clarify understanding and elicit the views of others Presents information varying level of technical vocabulary to suit audience
Numeracy	1.1, 4.1, 4.2, 6.1, 6.2	<ul style="list-style-type: none"> Collates, interprets and compares numerical and statistical information relevant to requirements
Navigate the world of work	3.1, 4.2, 5.1, 5.2, 6.1, 6.2	<ul style="list-style-type: none"> Considers legal and regulatory responsibilities when implementing, monitoring or reviewing risk management processes
Interact with others	2.2, 3.4, 3.5, 4.2	<ul style="list-style-type: none"> Identifies and uses appropriate conventions and protocols when communicating with others Plays a lead role in situations requiring effective collaboration skills demonstrating the ability to guide discussions and negotiate outcomes
Get the work done	1.1, 1.2, 2.1, 3.1-3.3, 4.1, 4.2, 5.1, 5.2, 6.1, 6.2	<ul style="list-style-type: none"> Develops plans or processes to manage relatively complex risk management tasks, with an awareness of how they contribute to operational and strategic goals Considers whether, and how, others should be involved, using consultative or collaborative processes as an integral part of the decision-making process Applies problem solving processes to determine solutions to risk management issues Uses analytical and lateral thinking to review practices and suggest improvements Uses a range of digitally based technology and applications to access, organise and share relevant information in effective ways

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWHS503 Contribute to the systematic management of WHS risk	BSBWHS503A Contribute to the systematic management of WHS risk	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBWHS503 Contribute to the systematic management of WHS risk

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- identify, interpret and apply information from a range of sources to contribute to the development, implementation, monitoring and evaluation of a systematic approach to work health and safety (WHS) risk management
- apply WHS Acts, regulations codes of practice and standards, including the Safe Work Australia model Code of Practice: How to Manage Work Health and Safety Risks
- identify duty holders
- explain the differences between a hazard and a risk and identify hazards and risks in the organisation
- prepare an action plan to implement a systematic approach to WHS risk management
- prepare positive performance indicators for evaluation of a systematic approach to WHS risk management
- consult effectively with relevant stakeholders.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe formal and informal communication and consultation processes, and key personnel related to communication, including duty holders
- explain how the characteristics and composition of the workforce impact on WHS risk and the management of WHS with reference to:
 - communication skills
 - cultural background/diversity
 - gender
 - labour market changes

- language, literacy and numeracy
- structure and organisation of the workforce, for example part time, casual and contract workers, shift rosters, geographical location
- workers with specific needs and limitations
- workplace culture towards alcohol and other drug use
- describe internal and external sources of WHS information and data, and explain how to access these sources
- outline the limitations of generic hazard identification and risk assessment checklists, and risk ranking processes
- describe the nature of workplace processes including work flow, planning and control and hazards relevant to the workplace
- describe organisational behaviour and culture as it impacts on WHS, change and the work team
- describe the key features of organisational WHS policies, procedures, processes and systems
- identify other functional areas in the organisation that impact on the management of WHS
- outline the key features of relevant commonwealth and state/territory WHS Acts, regulations, codes of practice, standards and guidance material
- describe the key principles and/or practices of:
 - a systematic approach to managing WHS
 - duty of care including concepts of causation, foreseeability and prevention
 - incident causation and injury processes
- describe risk analysis and assessment techniques and tools, and their application and limitations
- explain risk, as the effect of uncertainty, on objectives
- explain the duty of persons conducting businesses or undertakings (PCBUs) in regard to risk management under WHS legislation
- describe the sources of occupational disease and their prevention
- describe standard industry controls for hazards
- describe techniques, tools and processes for identifying and controlling health and safety hazards and risks including :
 - hazard and risk checklists
 - hazard hunts
 - job safety analysis
 - manifests and registers including dangerous goods, hazardous chemicals and plant
 - safe work method statements
 - surveys using questionnaires, interviews and other survey techniques
 - workplace inspections and walk throughs
- describe the key features of the toxicology of hazardous chemicals and potential health effects in the workplace.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced by individuals carrying out work health and safety duties in the workplace and include access to:

- relevant WHS legislation, standards, codes of practice and guidelines
- workplace policies and procedures and documentation
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBWHS508 Manage WHS hazards associated with plant

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to effectively manage work health and safety (WHS) hazards and to comply with WHS legislation as it applies to the management or control of plant (not the design, manufacture, supply, installation, construction or commissioning of plant or issuing of licences associated with plant).

It applies to individuals who may provide leadership and guidance to others using managerial and communication skills and who use systematic approaches to identify and resolve issues.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the National Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Regulation, Licensing and Risk – Work Health and Safety

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Comply with WHS	1.1 Apply knowledge of WHS legislation to advise individuals and

ELEMENT	PERFORMANCE CRITERIA
legislation as it applies to plant	<p>parties of their duties, rights and obligations with regard to plant as appropriate to their job roles and the nature of the organisation</p> <p>1.2 Ensure the management of hazards associated with plant, complies with relevant WHS legislation and organisational policies, procedures, processes and systems</p>
2 Ensure organisational policies, procedures, processes and systems incorporate effective management of hazards associated with plant	<p>2.1 Apply knowledge of organisational policies, procedures, processes and systems to determine if they effectively manage hazards associated with plant</p> <p>2.2 Develop and implement modifications to organisational policies, procedures, processes and systems as necessary to ensure hazards associated with plant are effectively managed</p> <p>2.3 Follow organisational policies, procedures, processes and systems when managing hazards associated with plant</p>
3 Identify WHS hazards associated with plant	<p>3.1 Access sources of information, data and advice to assist with identifying hazards associated with plant</p> <p>3.2 Identify and consult with others, as necessary, as part of hazard identification</p> <p>3.3 Record and report on hazard identification</p>
4 Assess WHS risks associated with plant	<p>4.1 Access sources of information, data and advice to assist with assessing WHS risks associated with plant hazards</p> <p>4.2 Identify and consult with others, as necessary, as part of WHS risk assessment</p> <p>4.3 Record and report on WHS risk assessments</p>
5 Control WHS risks associated with maintenance and continued safe use of plant	<p>5.1 Access sources of information, data and advice, including the outcomes of risk assessments to assist with developing risk control options for hazards associated with the maintenance and continued safe use of plant</p> <p>5.2 Identify, consult with and report to others as necessary, during all stages of risk control</p> <p>5.3 Develop risk control options and determine which options will be implemented</p> <p>5.4 Implement, evaluate and monitor risk controls</p> <p>5.5 Record and report on risk controls</p> <p>5.6 Review risks controls implemented and recommend improvements, where necessary</p>
6 Advise on registration,	6.1 Identify types of plant requiring registration and tasks requiring

ELEMENT	PERFORMANCE CRITERIA
licensing and certification issues associated with plant	<p>operator licensing and/or certification, in accordance with legislative requirements</p> <p>6.2 Document registration, licensing and certification requirements and communicate these to individuals and parties</p> <p>6.3 Identify, document and communicate to individuals and parties, training requirements to meet registration, licensing and certification, in accordance with legislative requirements</p> <p>6.4 Determine training needs required for new plant and/or new operating methods</p> <p>6.5 Ensure training is undertaken and completed prior to commencement of work using new plant and/or new operating methods</p> <p>6.6 Monitor and report compliance with regulatory requirements for registration, licensing and certification</p> <p>6.7 Identify, document and maintain appropriate records for plant and operator skill requirements</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.2, 2.1, 2.2, 3.1, 4.1, 5.1, 5.6, 6.1, 6.3, 6.7	<ul style="list-style-type: none"> Analyses a wide range of technical, non-technical information and numeric data to determine actions and adhere to requirements
Writing	1.1, 2.2, 3.2, 3.3, 4.3, 5.1-5.3, 5.5, 5.6, 6.2, 6.3, 6.6, 6.7	<ul style="list-style-type: none"> Matches style of writing to purpose and audience Uses appropriate formats, vocabulary and grammatical structures to record, report and present information
Oral Communication	1.1, 3.1-3.3, 4.1-4.3, 5.1, 5.2, 5.5, 5.6, 6.2, 6.3, 6.6	<ul style="list-style-type: none"> Explains information clearly and involves others in collaborative discussions using listening and questioning techniques Uses pace, intonation and gestures to present information and encourage engagement with others
Numeracy	2.1, 2.2, 3.1-3.3, 4.1, 5.1,	<ul style="list-style-type: none"> Collates, interprets and compares numerical and statistical information to apply relevance to requirements

Navigate the world of work	1.1, 1.2, 2.1-2.2, 6.1, 6.5	<ul style="list-style-type: none"> • Takes full responsibility for following policies, procedures and legislative requirements and identifies organisational implications of new legislation or regulations • Modifies or develops organisational policies and procedures to comply with legislative requirements and organisation goals
Interact with others	1.1, 3.1-3.3, 4.1-4.3, 5.1, 5.2, 6.2, 6.3	<ul style="list-style-type: none"> • Establishes and uses appropriate conventions and protocols when communicating with others regarding management of WHS • Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group interaction
Get the work done	2.2, 2.3, 3.1-3.3, 4.1-4.3, 5.1-5.6, 6.1-6.7	<ul style="list-style-type: none"> • Takes responsibility for developing and applying organisational processes to aid compliance with legislative requirements • Sequences and schedules complex activities, monitors implementation, records progress and manages relevant communication • Systematically gathers and analyses all relevant information and evaluates options in order to make informed decisions • Uses formal analytical thinking techniques for identifying issues and generating possible solutions, seeking input from others when necessary • Evaluates effectiveness of systems and processes to inform decisions on how to implement improvements • Fully utilises features of digital tools to complete complex tasks

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWHS508 Manage WHS hazards associated with plant	BSBWHS508A Manage WHS hazards associated with plant	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBWHS508 Manage WHS hazards associated with plant

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- manage effective identification of hazards and develop risk control options for the operation of plant as defined in work health and safety (WHS) legislation
- develop, implement, monitor and modify WHS policies and procedures for the operation of plant
- use relevant systems and procedures in the operation and maintenance of plant
- implement general licensing and training requirements associated with plant
- identify, record and report on WHS hazards and assessing risk
- develop and implement risk control options
- communicate in the workplace to:
 - advise people of their rights, obligations and duties
 - consult about policies and procedures
 - identify hazards
 - assess WHS risk
 - advise people about registration, licensing and certification requirements
- use machinery safety control measures to control plant risks, including following registration and licensing requirements
- identify training needs and organise training.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe the basic principles of incident causation and injury processes
- explain the differences between a hazard and a risk

- identify factors that impact on risk
- explain the hierarchy of control and considerations for choosing between different risk controls
- identify high-risk work licences required for specific plant
- identify internal and external sources of WHS information and data, and explain how to access these sources
- discuss the management of risk associated with plant as a duty of a person conducting a business or undertaking (PCBUs) under WHS legislation
- describe the methods for providing evidence of compliance with WHS legislation
- outline workplace processes (such as work flow, planning and control) and hazards relevant to the workplace
- discuss organisational behaviour and culture as it impacts on WHS, change and work team
- describe the key features of organisational WHS policies, procedures, processes and systems
- identify other functional areas that impact on the management of WHS
- outline key features of plant specific knowledge including:
 - basic physics of fluids under pressure and pressure vessels, and the behaviour of pressurised fluid when pressure is released
 - duties, rights and obligations of individuals and parties specified in WHS legislation
 - hazards associated with plant and systems of work associated with plant
 - industry practices related to permit to work and isolation and tag out systems
 - registration requirements of plant, licensing and certification competencies
- describe the key principles and practices of a systematic approach to managing WHS
- describe the strategies for guarding moving parts in machinery, human factors related to machine guarding, safe design principles, features and limitations
- outline the key features of WHS Acts, regulations, codes of practice and other instruments issued by WHS regulators.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced by individuals carrying out work health and safety duties in the workplace and include access to:

- manufacturers' manuals including specifications and operational information and data
- relevant WHS Acts, regulations, codes of practice, standards, guidelines
- sources of information, data and advice
- workplace policies and procedures
- workplace equipment and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBWOR204 Use business technology

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to select and use computer software and organise electronic information and data.

It applies to individuals who apply a limited range of practical skills with a fundamental knowledge of equipment use and the organisation of data in a defined context, under direct supervision or with limited individual responsibility.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Industry Capability – Workplace Effectiveness

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Select and use technology	1.1 Select appropriate technology and software applications to achieve requirements of the task 1.2 Adjust workspace, furniture and equipment to suit user's ergonomic requirements 1.3 Use technology according to organisational requirements and in a way that promotes a safe work environment
2. Process and organise	2.1 Identify, open, generate or amend files and records according

ELEMENT	PERFORMANCE CRITERIA
data	<p>to task and organisational requirements</p> <p>2.2 Operate input devices according to organisational requirements</p> <p>2.3 Store data appropriately and exit applications without damage to or loss of, data</p> <p>2.4 Use manuals, training booklets and/or online help or helpdesks to overcome basic difficulties with applications</p>
3. Maintain technology	<p>3.1 Identify and replace used technology consumables in accordance with manufacturer's instructions and organisational requirements</p> <p>3.2 Carry out and/or arrange routine maintenance to ensure equipment is maintained in accordance with manufacturer's instructions and organisational requirements</p> <p>3.3 Identify equipment faults accurately and take action in accordance with manufacturer's instructions or report fault to designated person</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.3, 2.1, 2.2, 2.4, 3.1-3.3	<ul style="list-style-type: none"> Recognises and interprets information from familiar sources to determine job role and task requirements
Writing	2.1, 2.3, 3.2, 3.3	<ul style="list-style-type: none"> Produces and amends files to meet task and organisational requirements Completes required documentation using organisational formats
Oral Communication	3.3	<ul style="list-style-type: none"> Uses specific and relevant language to refer faults to others
Navigate the world of work	1.2, 1.3, 2.1, 2.2, 3.1-3.3	<ul style="list-style-type: none"> Recognises and follows legislative requirements and organisational policies and procedures associated with own role
Get the work done	1.1, 1.3, 2.1-2.4, 3.1-3.3	<ul style="list-style-type: none"> Uses business technologies and systems safely, when gathering, storing, accessing and sharing information Understands purposes, specific functions and key

		features of common digital systems and business tools <ul style="list-style-type: none"> Operates digital systems and business tools effectively to complete routine tasks using some basic troubleshooting strategies as required
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWOR204 Use business technology	BSBWOR204A Use business technology	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBWOR204 Use business technology

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- select and use technology safely and according to organisational requirements
- access, retrieve and store required data
- demonstrate basic maintenance on a range of equipment using manuals or help-files
- identify and address faults according to requirements.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the organisation's work health and safety requirements
- outline the organisation's requirements for file naming and storage
- explain why regular back-ups of data are done
- list 'routine maintenance' tasks
- summarise the procedure for addressing equipment faults.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the industry capability – workplace effectiveness field of work and include access to:

- office equipment and resources
- electronic files and data
- workplace documentation and equipment manuals
- case studies and, where possible, real situations

- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBWOR404 Develop work priorities

Modification History

Release	Comments
Release 2	This version first released with BSB Business Services Training Package Version 1.1. Version created to correct mapping table information
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to monitor and obtain feedback on own work performance and access learning opportunities for professional development.

This unit applies to individuals who are required to design their own work schedules and work plans and to establish priorities for their work. They will typically hold some responsibilities for the work of others and have some autonomy in relation to their own role.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Industry Capability – Workplace Effectiveness

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and complete own work schedule	1.1 Prepare workgroup plans which reflect consideration of resources, client needs and workgroup targets 1.2 Analyse and incorporate work objectives and priorities into personal schedules and responsibilities

ELEMENT	PERFORMANCE CRITERIA
	<p>1.3 Identify factors affecting the achievement of work objectives and establish contingencies and incorporate them into work plans</p> <p>1.4 Efficiently and effectively use business technology to manage and monitor planning completion and scheduling of tasks</p>
2. Monitor own work performance	<p>2.1 Identify and analyse personal performance through self-assessment and feedback from others on the achievement of work objectives</p> <p>2.2 Seek and evaluate feedback on performance from colleagues and clients in the context of individual and group requirements</p> <p>2.3 Routinely identify and report on variations in the quality of service and performance in accordance with organisational requirements</p>
3. Co-ordinate professional development	<p>3.1 Assess personal knowledge and skills against organisational benchmarks to determine development needs and priorities</p> <p>3.2 Research and identify sources and plan for opportunities for improvement in consultation with colleagues</p> <p>3.3 Use feedback to identify and develop ways to improve competence within available opportunities</p> <p>3.4 Identify, access and complete professional development activities to assist career development</p> <p>3.5 Store and maintain records and documents relating to achievements and assessments in accordance with organisational requirements</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Learning	3.1, 3.2, 3.3, 3.4	<ul style="list-style-type: none"> Develops strategies to reflect on own performance, obtain feedback, and plan and source professional development opportunities
Reading	1.2, 2.1, 2.3, 3.1, 3.5	<ul style="list-style-type: none"> Recognises and interprets textual information from relevant sources to understand organisation's policies and practices

Writing	1.1, 1.3, 2.2, 2.3, 3.2, 3.5	<ul style="list-style-type: none"> Prepares written reports and workplace documentation that communicate complex information clearly and effectively
Oral Communication	2.2, 2.3, 3.2	<ul style="list-style-type: none"> Provides or seeks information using language suitable to audience and context Employs listening and questioning techniques to confirm understanding
Numeracy	1.1, 1.2, 1.3	<ul style="list-style-type: none"> Interprets numerical information related to budgets and timeframes
Navigate the world of work	1.2, 2.1, 2.3, 3.1, 3.5	<ul style="list-style-type: none"> Identifies and understands roles and responsibilities in relation to organisational objectives, policies and procedures
Interact with others	2.2, 2.3, 3.2	<ul style="list-style-type: none"> Selects and uses appropriate practices when communicating with internal and external stakeholders to seek or share information Establishes and builds rapport and relationships with others to foster a culture of trust and honesty in communications
Get the work done	1.1-1.4, 2.3, 3.1, 3.2, 3.4, 3.5	<ul style="list-style-type: none"> Plans, organises and implements tasks to meet organisational requirements Systematically gathers and analyses information and evaluates options in order to anticipate potential problems and develop contingency plans Uses the main features and functions of digital technologies and tools to complete work tasks efficiently and effectively

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWOR404 Develop work priorities	BSBWOR404B Develop work priorities	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBWOR404 Develop work priorities

Modification History

Release	Comments
Release 2	This version first released with BSB Business Services Training Package Version 1.1. Version created to correct mapping table information
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- prepare and communicate own work plan
- schedule work objectives and tasks to support the achievement of the workgroup goals
- review own work performance against workgroup objectives through self-assessment and seeking and acting on feedback from clients and colleagues
- plan and access learning opportunities to extend personal work competencies.

Note: if a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain how business technology applications can be used to schedule tasks and plan work
- explain techniques to prepare personal plans and establish priorities
- identify methods to identify and prioritise personal learning needs
- outline a range of professional development options
- explain methods to elicit, analyse and interpret feedback
- provide a detailed explanation of methods that can be used to evaluate own performance.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the industry capability - workplace effectiveness field of work and include access to:

- workplace documentation including policies and procedures, and benchmarks for work group productivity and performance
- workplace equipment and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

BSBWOR501 Manage personal work priorities and professional development

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to create systems and process to organise information and prioritise tasks.

It applies to individuals working in managerial positions who have excellent organisational skills. The work ethic of individuals in this role has a significant impact on the work culture and patterns of behaviour of others as managers at this level are role models in their work environment.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Industry Capability – Workplace Effectiveness

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish personal work goals	1.1 Serve as a positive role model in the workplace through personal work planning 1.2 Ensure personal work goals, plans and activities reflect the organisation's plans, and own responsibilities and accountabilities 1.3 Measure and maintain personal performance in varying work conditions, work contexts and when contingencies occur

ELEMENT	PERFORMANCE CRITERIA
2. Set and meet own work priorities	<p>2.1 Take initiative to prioritise and facilitate competing demands to achieve personal, team and organisational goals and objectives</p> <p>2.2 Use technology efficiently and effectively to manage work priorities and commitments</p> <p>2.3 Maintain appropriate work-life balance, and ensure stress is effectively managed and health is attended to</p>
3. Develop and maintain professional competence	<p>3.1 Assess personal knowledge and skills against competency standards to determine development needs, priorities and plans</p> <p>3.2 Seek feedback from employees, clients and colleagues and use this feedback to identify and develop ways to improve competence</p> <p>3.3 Identify, evaluate, select and use development opportunities suitable to personal learning style/s to develop competence</p> <p>3.4 Participate in networks to enhance personal knowledge, skills and work relationships</p> <p>3.5 Identify and develop new skills to achieve and maintain a competitive edge</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Learning	3.1, 3.2, 3.3, 3.4, 3.5	<ul style="list-style-type: none"> Investigates and uses a range of strategies to develop personal competence
Reading	1.2, 3.1, 3.2	<ul style="list-style-type: none"> Analyses and interprets textual information from organisational policies and practices or feedback to inform personal development planning
Writing	3.2	<ul style="list-style-type: none"> Uses feedback to prepare reports that summarise ways to improve competence
Oral Communication	3.2	<ul style="list-style-type: none"> Uses active listening and questioning to seek and receive feedback
Navigate the world of work	1.2, 2.1	<ul style="list-style-type: none"> Understands how own role contributes to broader organisational goals Considers organisational protocols when planning own career development

Interact with others	1.1, 3.2, 3.4	<ul style="list-style-type: none"> Selects and uses appropriate conventions and protocols when communicating with diverse stakeholders Uses interpersonal skills to establish and build positive working relationships with others
Get the work done	1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1	<ul style="list-style-type: none"> Plans and prioritises tasks in order to meet deadlines, manage role responsibilities and to manage own personal welfare Identifies and uses appropriate technology to improve work efficiency

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWOR501 Manage personal work priorities and professional development	BSBWOR501B Manage personal work priorities and professional development	<p>Updated to meet Standards for Training Packages</p> <p>Minor edits to clarify Performance Criteria</p>	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

Assessment Requirements for BSBWOR501 Manage personal work priorities and professional development

Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- use business technology to create and use systems and processes to organise and prioritise tasks and commitments
- measure and maintain personal work performance including assessing competency against competency standards and seeking feedback
- maintain an appropriate work-life balance to manage personal health and stress
- participate in networks
- develop a personal development plan which includes career objectives and an action plan
- develop new skills.

Note: if a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain principles and techniques involved in the management and organisation of:
 - performance measurement
 - personal behaviour, self-awareness and personality traits identification
 - a personal development plan
 - personal goal setting
 - time
- discuss management development opportunities and options for self
- describe methods for achieving a healthy work-life balance
- outline organisation's policies, plans and procedures
- explain types of learning style/s and how they relate to the individual
- describe types of work methods and practices that can improve personal performance.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the industry capability - workplace effectiveness field of work and include access to:

- workplace equipment and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

CHCCDE002 Develop and implement community programs

Modification History

Release	Comments
Release 1	<p>This version was released in <i>CHC Community Services Training Package release 2.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to performance criteria</p> <p>New evidence requirements for assessment including volume and frequency requirements</p>

Application

This unit describes the skills and knowledge required to develop community programs to ensure maximum participation.

This unit applies to workers in both health and community sectors and/or a community development work context. Workers at this level will be part of a professional team and have the responsibility of supervision of others.

The skills in this unit must be applied in accordance with Commonwealth and State/Territory legislation, Australian/New Zealand standards and industry codes of practice.

Elements and Performance Criteria

Elements define the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | |
|-------------------------------|--|
| 1. Develop program parameters | <p>1.1 Analyse issues of wide community concern to develop an agency position and to ascertain the priority for new program</p> <p>1.2 Undertake appropriate work to ascertain support, capacity for a coordinated effort and factors which will effect provision of services</p> <p>1.3 Undertake research to identify key people, priorities to be addressed, possible strategies and options for action</p> <p>1.4 Identify measures and evidence of program plan</p> |
|-------------------------------|--|

success and possible risks

1.5 Develop appropriate plans via participation of relevant communities and stakeholders

2. Design programs with the community

2.1 Develop a program plan which reflects identified parameters and incorporates an evaluation of a range of program options within organisation policy

2.2 Engage stakeholder participation to determine preferred program options particularly in areas of high priority or with targeted communities

2.3 Seek help from participating agencies for implementation arrangements

2.4 Develop and implement promotion and marketing strategies

2.5 Develop and maintain systems and resources for administrative support of community programs

2.6 Identify and seek resources

3. Implement programs

3.1 Conduct and evaluate pilots and make adjustments to ensure the program achieves its objectives

3.2 Implement and monitor in accordance to the plan

4. Evaluate programs

4.1 Evaluate program design and outcomes according to criteria and specifications identified in the program plan

4.2 Use results of evaluation for revision and ongoing development

4.3 Involve interested and/or relevant people in program evaluation

Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e0c25cc-3d9d-4b43-80d3-bd22cc4f1e53>

Assessment Requirements for CHCCDE002 Develop and implement community programs

Modification History

Release	Comments
Release 1	<p>This version was released in <i>CHC Community Services Training Package release 2.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to performance criteria</p> <p>New evidence requirements for assessment including volume and frequency requirements</p>

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role. There must be demonstrated evidence that the candidate has:

- developed, implemented and evaluated at least 1 community program

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete tasks outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the work role. This includes knowledge of:

- relevant legislation and public policies
- social, community and youth issues
- contemporary economics and politics and their impact on community development
- traditional community development approaches:
 - needs-based
 - gap-based
- principles and practices of contemporary community development approaches and techniques for mobilisation in relation to:
 - asset-based (ABCD)
 - rights-based
- social movements
- sociology fundamentals, including:
 - commonly accepted social theories
 - social inequality

- sociology of class
- sociology of gender, including impacts of culture on gender dynamics

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions. Where simulation is used, it must reflect real working conditions by modelling industry operating conditions and contingencies, as well as, using suitable facilities, equipment and resources.

Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e0c25cc-3d9d-4b43-80d3-bd22cc4f1e53>

CHCCDE010 Develop and lead community engagement strategies to enhance participation

Modification History

Release	Comments
Release 1	<p>This version was released in <i>CHC Community Services Training Package release 2.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to performance criteria</p> <p>New evidence requirements for assessment including volume and frequency requirements</p> <p>Significant changes to knowledge evidence</p>

Application

This unit describes the skills and knowledge required to apply advanced community engagement skills to increase participation in the community development environment.

The high level engagement skills described in this unit apply to a range of workplace contexts involving skill development, application and evaluation of engagement strategies to ensure effective community participation in relevant projects and activities.

This unit applies to workers in both health and community sectors and/or a community development work context. Workers at this level will be part of a professional team and have the responsibility of supervision of others.

The skills in this unit must be applied in accordance with Commonwealth and State/Territory legislation, Australian/New Zealand standards and industry codes of practice.

Elements and Performance Criteria

ELEMENT

Elements define the essential outcomes

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

ELEMENT

PERFORMANCE CRITERIA

1. Develop an effective community engagement plan

- 1.1 Document the purpose and scope of the community engagement
- 1.2 Identify and document relevant stakeholders and individuals who should be involved in the engagement process
- 1.3 Analyse and determine the level of impact that stakeholders have in any decisions and the level of public participation required
- 1.4 Specify the engagement tools and methods to be used within specified timeframes and considering any specific barriers to participation
- 1.5 Identify and document evaluation mechanisms
- 1.6 Develop a budget proposal
- 1.7 Present the completed plan to management and the community for revision and endorsement

2. Implement the engagement plan

- 2.1 Organise the participation activity according to the plan
- 2.2 Proactively identify and address the specific priorities of individuals who are disengaged
- 2.3 Promote participation to the relevant stakeholders using appropriate communication methods
- 2.4 Undertake the engagement activity using relevant tools and techniques
- 2.5 Encourage all group members to contribute their ideas constructively and respectfully during group discussions
- 2.6 Routinely use strategies that enhance effective group interactions and communication
- 2.7 Respond to questions in a manner consistent with organisation standards
- 2.8 Document the participation feedback from participants
- 2.9 Conduct an evaluation of the participation activities

3. Evaluate and review the outcomes and effectiveness of

- 3.1 Review the engagement activities in comparison with the plan objectives

ELEMENT

the participation plan

PERFORMANCE CRITERIA

3.2 Document the outcomes and evaluation feedback

3.3 Report this information to relevant stakeholders

Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e0c25cc-3d9d-4b43-80d3-bd22cc4f1e53>

Assessment Requirements for CHCCDE010 Develop and lead community engagement strategies to enhance participation

Modification History

Release	Comments
Release 1	<p>This version was released in <i>CHC Community Services Training Package release 2.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to performance criteria</p> <p>New evidence requirements for assessment including volume and frequency requirements</p> <p>Significant changes to knowledge evidence</p>

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role. There must be demonstrated evidence that the candidate has:

- developed 1 engagement plan
- facilitated at least 3 group discussions, including:
 - used a range of group facilitation strategies to enhance interactions between group members and to gather relevant feedback
 - provided feedback to the group regarding outcomes

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the work role. This includes knowledge of:

- communication styles and techniques
- group facilitation processes and mechanisms for group support
- principles of effective community engagement and participation
- traditional and contemporary models of engagement
- community engagement techniques including online tools and use of social media
- methods of research
- sustainability
- empowerment; community control and hegemony

- capacity building
- asset based community development
- methods of engagement and participation
- evaluation and review
- building and maintaining partnerships
- social capital
- reporting mechanisms
- reengagement strategies for individuals who are disengaged

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions. Where simulation is used, it must reflect real working conditions by modelling industry operating conditions and contingencies, as well as, using suitable facilities, equipment and resources.

Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e0c25cc-3d9d-4b43-80d3-bd22cc4fle53>

CHCCDE012 Work within organisation and government structures to enable community development outcomes

Modification History

Release	Comments
Release 1	<p>This version was released in <i>CHC Community Services Training Package release 2.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to performance criteria</p> <p>New evidence requirements for assessment including volume and frequency requirements</p> <p>Significant changes to knowledge evidence</p>

Application

This unit describes the skills and knowledge required to work within community and government structures to enable community development processes.

This unit applies to workers in both health and community sectors and/or a community development work context. Workers at this level will be part of a professional team and have the responsibility of supervision of others.

The skills in this unit must be applied in accordance with Commonwealth and State/Territory legislation, Australian/New Zealand standards and industry codes of practice.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

Elements define the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element.

1. Work within the structures and process of the organisation

1.1 Identify and work within the management and governance structure, philosophy and purpose of own organisation

1.2 Work within lines of decision-making and accountability in contributing to planning processes in relation to

ELEMENT

PERFORMANCE CRITERIA

	organisation's community development activities
	1.3 Ensure decisions and processes are documented and accessible to all involved
2. Assess extent to which organisation supports community development work	<p>2.1 Plan for aspects of the management structure, philosophy and purpose, governance structures, policies and procedures which are supportive of community development work</p> <p>2.2 Plan for aspects of the management structure, philosophy and purpose, governance structures, policies and procedures which may create barriers to community development work</p>
3. Utilise all levels of government for community development activities and projects	<p>3.1 Research all levels of government that provide community funding</p> <p>3.2 Identify current and possible future funding sources for community resources and programs</p> <p>3.3 Plan for government policy barriers and, with community members, identify strategies to support change</p> <p>3.4 Develop strategic alliances between organisation, community members and relevant government agencies to support community development activities</p> <p>3.5 Proactively seek opportunities to influence government decision and policy making in line with community issues and priorities</p> <p>3.6 Ensure community development activities and projects adhere to relevant commonwealth, state/territory and local government legal requirements</p> <p>3.7 Regularly update information about current legal requirements and if appropriate, develop proposals to modify organisation policy and procedures in relation to community development activities</p>
4. Maintain the profile of community development work within the organisation	<p>4.1 Use formal and informal networks to communicate the organisation's community development activities and achievements</p> <p>4.2 Use a range of communication media and activities to convey information about community development activities and achievements of the organisation to encourage support</p>

ELEMENT

PERFORMANCE CRITERIA

and interest

4.3 Seek and utilise opportunities to promote the organisation and its community development work and activities

4.4 Display confidentiality and sensitivity in details, content and extent of public comment on organisation's activities

5. Maintain management support for community development activities and projects

5.1 Identify and advise management of political, social, cultural and economic trends that may impact on community development activities and projects

5.2 Ensure community development activities and project work is within the policies and procedures of the organisation

5.3 Promptly address problems in implementing defined procedures to ensure resolution

5.4 Identify and seek to resolve conflict between organisation policies and community or public issues

5.5 Ensure information about community development activities and projects is provided within the management structures to facilitate effective and informed deliberations and decision-making

Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e0c25cc-3d9d-4b43-80d3-bd22cc4f1e53>

Assessment Requirements for CHCCDE012 Work within organisation and government structures to enable community development outcomes

Modification History

Release	Comments
Release 1	<p>This version was released in <i>CHC Community Services Training Package release 2.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to performance criteria</p> <p>New evidence requirements for assessment including volume and frequency requirements</p> <p>Significant changes to knowledge evidence</p>

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role. There must be demonstrated evidence that the candidate has:

- identified aspects of at least 1 organisation's structure and philosophy which support community development work and the potential implicit barriers to that work
- prepared at least 1 report on community development activities and projects in a comprehensive and accurate manner and presented to relevant stakeholders and management

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete tasks outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the work role. This includes knowledge of:

- relevant legislation and public policies
- structures and systems that support or present barriers to community development
- principles of participatory democracy
- range of management and governance structures operating with the community services industry
- social, economic, political, cultural and economic development
- all possible funding sources

- critical theories for analysing human service organisations
- critique of managerial approaches including:
 - management systems and principles
 - performance standards
 - service quality development
 - consumer focus
 - enterprise agreements
 - performance monitoring and review
- change management principles

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions. Where simulation is used, it must reflect real working conditions by modelling industry operating conditions and contingencies, as well as, using suitable facilities, equipment and resources.

Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e0c25cc-3d9d-4b43-80d3-bd22cc4f1e53>

CHCVOL003 Recruit, induct and support volunteers

Modification History

Release	Comments
Release 1	<p>This version was released in <i>CHC Community Services Training Package release 2.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to performance criteria</p> <p>New evidence requirements for assessment including volume and frequency requirements</p> <p>Significant changes to knowledge evidence</p>

Application

This unit describes the skills and knowledge required to recruit, orientate, develop and support volunteer workers in an agency, service or program. Workers at this level will be responsible for the ongoing coordination and supervision of volunteers who may be working in a range of contexts.

This unit applies to a range of sectors.

The skills in this unit must be applied in accordance with Commonwealth and State/Territory legislation, Australian/New Zealand standards and industry codes of practice.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

Elements define the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element.

1. Plan and develop a volunteer recruitment program

1.1 Develop and implement processes and procedures to support the identification of volunteer roles

1.2 Apply models of volunteering to develop volunteering roles within the organisation

1.3 Plan and develop recruitment, selection and induction policies and procedure

ELEMENT**PERFORMANCE CRITERIA**

Elements define the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element.

2. Select and induct volunteers

- 2.1 Develop appropriate advertising strategies ensuring compliance with organisation policy and legal requirements
- 2.2 Undertake appropriate screening, interviewing and selection processes
- 2.3 Develop and implement volunteer induction program

3. Develop and implement volunteer support systems

- 3.1 Develop and implement training appropriate for volunteer roles
- 3.2 Establish and maintain regular communication with volunteers
- 3.3 Regularly review roles and performance and provide feedback to the volunteer
- 3.4 Review recruitment, induction and support systems and identify areas for continuous improvement

Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e0c25cc-3d9d-4b43-80d3-bd22cc4f1e53>

Assessment Requirements for CHCVOL003 Recruit, induct and support volunteers

Modification History

Release	Comments
Release 1	<p>This version was released in <i>CHC Community Services Training Package release 2.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to performance criteria</p> <p>New evidence requirements for assessment including volume and frequency requirements</p> <p>Significant changes to knowledge evidence</p>

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role. There must be evidence that the candidate has:

- planned and implemented all aspects of the recruitment of 2 volunteers
- developed and implemented 1 induction program for volunteers, that included:
 - organisation purpose and services
 - role of volunteers in the organisation
 - insurance
 - rights & responsibilities of all parties including work health and safety (WHS)
 - organisation structure and lines of communication and authority
 - expenses and reimbursements processes
 - relevant policies and procedures and codes of conduct
- conducted a performance review for 1 volunteer

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the work role. This includes knowledge of:

- relevant legislation and public policies relating to the employment of unpaid workers
- rights and responsibilities of both organisation and volunteer
- implications of differences in attitudes and values in working in the organisation

- *Universal declaration on volunteering* and current national volunteering codes and standards
- definitions of volunteering
- paid versus unpaid role responsibilities and the delineation of these roles
- structure of volunteer sector including support and recruitment agencies
- role of government and government bodies in volunteering
- motivations of volunteers, what can de-motivate volunteers and how volunteer motivation changes over time
- different models of volunteering taken from an organisation perspective, including the involvement of volunteers as service providers, fundraisers, corporate volunteering, activist and in community development
- range of diverse sectors and roles where volunteers are involved
- screening processes, including police checks, interviews, application forms, referee checks and meetings
- current trends and issues in volunteering
- engagement strategies for volunteering
- performance appraisal methods and techniques
- recognition and rewards for volunteers

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions. Where simulation is used, it must reflect real working conditions by modelling industry operating conditions and contingencies, as well as, using suitable facilities, equipment and resources.

Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e0c25cc-3d9d-4b43-80d3-bd22cc4f1e53>

CPCCCM2010B Work safely at heights

Modification History

Photovoltaic (solar) panels added to range statement

Equivalent to CPCCCM2010A

Unit Descriptor

This unit of competency specifies the outcomes required to work safely on construction sites where the work activity involves working above 1.5 metres from ground level and where fall protection measures are required.

Application of the Unit

Construction work is undertaken on domestic and commercial work sites within new construction, renovation or refurbishment, and maintenance.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

- | | | | |
|---|----------------------------------|-----|---|
| 1 | Identify work area requirements. | 1.1 | Site of proposed <i>work at heights</i> is identified from relevant <i>information</i> . |
| | | 1.2 | Method of accessing work area is identified. |
| | | 1.3 | Tasks to be completed are identified from work orders and supervisor instructions. |
| | | 1.4 | Fall protection equipment is identified if required by site job <i>workplace health and safety (WHS)</i> analysis and <i>statutory and regulatory</i> requirements. |
| | | 1.5 | Approved methods of moving tools and equipment to work area are identified to minimise potential of falling objects, removal of scaffold components, inappropriate carrying of materials on ladders, and excessive bending or twisting in pass-up situations. |
| 2 | Access work area. | 2.1 | Fall protection equipment where required is correctly fitted, adjusted and anchored. |
| | | 2.2 | Arrangements are made to appropriately install required equipment taking account of all potential <i>hazards</i> . |
| | | 2.3 | Appropriate methods are used to access work area for self, <i>tools and equipment</i> , and <i>materials</i> . |
| | | 2.4 | Tools and materials are placed to eliminate or at least minimise the risk of items being knocked down. |
| 3 | Conduct work tasks. | 3.1 | Work is conducted following workplace approved procedures. |
| | | 3.2 | Fall protection equipment is kept in place and adjusted appropriately to cater for movement during work. |
| | | 3.3 | Scaffold components and fall barriers are kept in place during work. |
| | | 3.4 | Egress from work area is completed following work site supervisor approved methods for self, tools, materials |

and *environmental requirements*.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Required skills for this unit are:

- communication skills to:
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication, such as hand signals
- organisational skills, including the ability to plan and set out work
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technological skills to:
 - use a range of mobile technology
 - voice and hand signals to access and understand site-specific instructions.

Required knowledge

Required knowledge for this unit is:

- construction terminology
- job safety analysis (JSA) and safe work method statements
- material safety data sheets (MSDS)
- quality requirements
- types, characteristics, uses and limitation of plant, tools and equipment
- workplace and equipment safety requirements.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment

Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- locate, interpret and apply relevant information, standards and specifications
- comply with site safety plan, OHS regulations and state and territory legislation applicable to workplace operations
- safely and effectively use tools, plant and equipment
- communicate and work effectively and safely with others
- select and use appropriate height access and fall protection equipment and work methods, including inspecting fall protection equipment, scaffold and fall barriers for faults
- apply knowledge of industry products to identify:
 - manual handling risks
 - types of lifting and support structures approved for use
- modify work activities to cater for variations in work site procedures, contexts and environment and use appropriate behaviour for safe work at heights
- use safe handling requirements, based on information provided, for equipment, products and materials.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement

- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning

experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Work at heights includes:

- assessment of conditions and hazards
- determination of work requirements
- identification of equipment defects
- inspection of work sites.

Information includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- material safety data sheets (MSDS)
- memos
- signage
- verbal or written and graphical instructions
- work bulletins
- work schedules, plans and specifications.

Workplace health and safety is to be in accordance with state or territory legislation and regulations, organisational safety policies and procedures, and project safety plan

- emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
- handling of materials
- hazard control

and may include:

- hazardous materials and substances
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - earth leakage boxes
 - lighting
 - photovoltaic (solar) panels
 - power cables, including overhead service trays, cables and conduits
 - restricted access barriers
 - surrounding structures
 - traffic control
 - trip hazards
 - work site visitors and the public
 - working in confined spaces
 - working in proximity to others
 - working with dangerous materials
- organisational first aid
- personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- relevant OHS legislation applying in the jurisdiction where work is carried out, including:
 - AS6001 - 1999 Working platforms for domestic application
 - AS1576 - Scaffolding
 - AS/NZS4576 - 1995 Guidelines for scaffolding
- use of tools and equipment
- workplace environment and safety.

Statutory and regulatory authorities include:

- federal, state and local authorities administering applicable Acts, regulations and codes of practice.

Hazards include:

- air temperature
- construction activity involving other workers and contractors
- dust and vapours
- electrical equipment
- energy sources
- equipment and materials
- hazardous materials

- light
- manual handling
- moisture
- noise
- photovoltaic (solar) panels
- stationary and moving plant
- work at heights.

Tools and equipment include:

- air compressors and hoses
- hand and power tools
- nail guns
- power leads
- scaffolding.

Materials include:

- materials used on the construction work site.

Environmental requirements include:

- clean-up management
- noise and dust
- vibration
- waste management.

Unit Sector(s)

Functional area

Unit sector Construction

Custom Content Section

Not applicable.

CPCCCM3001C Operate elevated work platforms

Modification History

Prerequisite unit identifier code updated

Equivalent to CPCCCM3001B

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to safely and effectively operate some types of elevated work platforms (EWPs) in a variety of different terrains and situations to access isolated work areas. The unit includes locating, setting up, operating and shutting down EWPs.

In addition to achievement of this competency, an EWP operator may need to obtain additional certification of training and experience before being allowed to operate the equipment.

Application of the Unit

Application of the unit

This unit of competency assists in the safe and effective operation of electrical, hydraulic or mechanical EWPs. The unit does not cover powered telescoping devices, hinged devices or articulated devices, or any combination of these used to support a platform on which personnel, equipment and materials may be elevated to perform work and which has a boom length of 11 metres or more. An OHS authority Certificate of Competency may be required to operate boom type EWPs of 11 metres or more in some jurisdictions.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

CPCCCM2010B	Work safely at heights
CPCCOHS2001A	Apply OHS requirements, policies and procedures in the construction industry

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare.	<p>1.1. <i>Work planning and preparation</i> are conducted using plans, specifications, quality requirements and operational details, obtained, confirmed and applied from relevant <i>information</i>.</p> <p>1.2. <i>Safety (OHS)</i> requirements for the <i>types of EWP</i> to be operated are followed in accordance with safety plans and policies.</p> <p>1.3. Signage and barricade requirements are identified and implemented.</p> <p>1.4. Plant, <i>tools and equipment</i> and <i>personal protective equipment</i> are selected to carry out tasks are consistent with job requirements, checked for serviceability, and any faults are rectified or reported prior to commencement.</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>1.5. Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.</p> <p>1.6. Environmental requirements are identified for the project in accordance with environmental plans and statutory and regulatory authority obligations, and are applied.</p>
<p>2. Conduct routine checks of platform.</p>	<p>2.1. Power source is determined and connected to platform equipment according to manufacturer specifications.</p> <p>2.2. Routine pre-operational equipment checks are carried out in accordance with checklist from operator's manual or manufacturer specifications.</p> <p>2.3. Equipment is switched on in accordance with start up procedures and controls are checked for correct operation and ease of movement.</p> <p>2.4. Emergency safety devices are checked to comply with instructions from operator's manual and checked for manual operation.</p> <p>2.5. Work location is checked for level ground or floor surface to determine stabilising and safe working area requirements.</p>
<p>3. Locate equipment in place for work application.</p>	<p>3.1. Platform is positioned for work application and stabilisers are engaged to set equipment base level into place according to safe operating procedures.</p> <p>3.2. Tools, equipment and materials are placed into bucket or on platform according to job application requirements.</p>
<p>4. Elevate platform to work location.</p>	<p>4.1. Harness is fitted securely and lanyard connected to attachment point.</p> <p>4.2. EWP operation and controls are operated to manufacturer recommendations and platform is elevated to work position.</p> <p>4.3. Power is switched off where specified and locking devices are engaged according to operator's manual.</p> <p>4.4. Work is carried out to job specification and safety (OHS) requirements of operator's manual.</p>
<p>5. Lower platform and shut down.</p>	<p>5.1. Controls are operated to manufacturer recommendations and platform is lowered to down position.</p> <p>5.2. Shut down procedures are carried out to operator's manual and equipment is switched off.</p>

ELEMENT**PERFORMANCE CRITERIA**

-
- | | |
|--------------|---|
| 6. Clean up. | 6.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification. |
| | 6.2. Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturer recommendations and standard work practices. |
| | 6.3. Work completion procedures are applied and relevant personnel notified that work is finished. |

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills for this unit are:

- communication skills to:
 - determine requirements
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - follow instructions
 - read and interpret:
 - documentation from a variety of sources
 - drawings and specifications
 - report faults
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication, such as hand signals
 - written skills to complete inspection log and handover
- identifying and accurately reporting to appropriate personnel any faults in tools, equipment or materials
- numeracy skills to apply measurements and make calculations
- organisational skills, including the ability to plan and set out work
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technological skills to:

REQUIRED SKILLS AND KNOWLEDGE

- use a range of mobile technology, such as two-way radio and mobile phones
- voice and hand signals to access and understand site-specific instructions.

Required knowledge

Required knowledge for this unit is:

- designs, functions and operational limitations of EWP equipment
- EWP equipment types and OHS authority certification of competency requirements
- EWP techniques
- fault finding and identification
- general construction terminology
- job safety analysis (JSA) and safe work method statements
- material safety data sheets (MSDS)
- materials storage and environmentally friendly waste management
- plans, specifications and drawings
- processes for the calculation of load mass requirements
- quality requirements
- relevant Acts, regulations and codes of practice
- safe working at heights
- signalling methods and communications
- types, characteristics, uses and limitations of plant, tools and equipment
- workplace and equipment safety requirements.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment

A person who demonstrates competency in this

EVIDENCE GUIDE

and evidence required to demonstrate competency in this unit

unit must be able to provide evidence of the ability to:

- locate, interpret and apply relevant information, standards and specifications
- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations
- comply with organisational policies and procedures, including quality requirements
- safely and effectively use tools, plant and equipment
- communicate and work effectively and safely with others
- complete set up and operation of a range of EWPs as listed in the range statement, including all functions.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources,

EVIDENCE GUIDE

and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training

EVIDENCE GUIDE

staff.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Work planning and preparation include:

- assessment of conditions and hazards
- consideration that EWPs must not be operated anywhere with overhead powerlines above, or within specified clearance distances set out in documentation such as Electrical Safety - Power line NO GO Zones, unless permission has been obtained from the power authority and a JSA has been developed
- determination of work requirements
- equipment defect identification
- work site inspection.
- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions where specified
- MSDS
- memos
- regulatory and legislative requirements pertaining to EWPs
- relevant Australian standards
- safe work procedures related to operating EWPs, including the safe working load written on the EWP which must be checked to ensure it is not exceeded
- signage
- verbal or written and graphical instructions
- work bulletins

Information includes:

RANGE STATEMENT

Safety (OHS) is to be in accordance with legislation, regulations, codes of practice, organisational safety policies and procedures, and project safety plan and may include:

- work schedules, plans and specifications.
- procedures related to equipment operation, including emergency shutdown and stopping, extinguishing equipment fires, organisational first aid requirements and evacuation
- handling of materials
- hazard control
- hazardous materials and substances
- organisational first aid
- personal protective clothing and equipment
- use of firefighting equipment
- use of tools and equipment
- workplace environment and safety.

Types of EWP:

- EWPs include scissor lifts, boom and knuckle boom lifts with a boom length under 11 metres
- EWPs are classified as:
 - trailer mounted boom lift (TL)
 - self-propelled boom lift (BL)
 - vertical lift (VL)
 - scissor lift (SL)
 - truck-mounted boom lift (TM), which is not covered by this unit of competency.

Tools and equipment include:

- EWPs, extension leads, logbooks, service manuals, operation manuals, safety harnesses and lanyards
- special attachments, which may have to be installed if equipment is to be shifted with the EWP, as lifting loads via cables and ropes from an EWP is not permitted.

Personal protective equipment includes:

- that prescribed under legislation, regulations, codes of practice and workplace policies and practices.

Environmental requirements include:

- clean-up protection
- noise and dust
- sedimentation control
- vibration
- waste management.

Statutory and regulatory authorities include:

- federal, state and local authorities administering applicable Acts, regulations and codes of practice.

RANGE STATEMENT

- Emergency safety devices*** include:
- bleed valves
 - electronic override
 - emergency descent devices
 - ground controls
 - hydraulic accumulators.
- Safe operating procedures*** include:
- conduct of operational risk assessment and treatments associated with:
 - earth leakage boxes
 - lighting
 - power cables, including overhead service trays, cables and conduits
 - restricted access barriers
 - surrounding structures
 - traffic control
 - trip hazards
 - work site visitors and the public
 - working at heights
 - working in confined spaces
 - working in proximity to others
 - working with dangerous materials
 - not using slab terrain EWPs on any surface other than concrete or level asphalt.
- Harnesses*** include:
- energy or shock absorbers that must be used with all fall arrest lanyard, harness and inertia reel systems
 - full body rescue harness
 - lanyards and inertia reels, which should be attached to the harness installed so that the maximum distance a person equipped with a harness would free fall before the fall arrest system takes effect is 2 metres.
- EWP operation*** includes:
- boom up and down
 - operate attachments
 - operate outriggers
 - slew left and right
 - telescope in and out.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area

CPCDDO3011A Perform dogging

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to undertake basic dogging work, both in sight and out of sight of the crane operator, for the purpose of shifting loads mechanically.

The unit includes selecting sling types and sizes and maintaining the stability of the load.

Application of the Unit

Application of the unit

This unit of competency supports the attainment of the understanding and skills to use dogging tools and equipment, which may include working with others and as a member of a team.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units

CPCCOHS2001A

Apply OHS requirements, policies and procedures in the construction industry

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare.	<p>1.1. Work instructions and operational details are obtained using relevant <i>information</i>, confirmed and applied for <i>planning and preparation</i> purposes.</p> <p>1.2. <i>Safety (OHS)</i> requirements are followed in accordance with safety plans and policies.</p> <p>1.3. Signage and barricade requirements are identified and implemented.</p> <p>1.4. <i>Tools and equipment</i> selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement.</p> <p>1.5. Materials quantity requirements are calculated in accordance with plans, specifications and <i>quality requirements</i>.</p> <p>1.6. Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.</p> <p>1.7. <i>Environmental requirements</i> are identified for the project in accordance with environmental plans and regulatory obligations and applied.</p>
2. Select dogging equipment.	<p>2.1. Resources, materials and equipment are selected and inspected for compliance with job specifications.</p> <p>2.2. Job sequencing schedule is communicated with team</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>members and others to ensure coordination.</p> <p>2.3. Load mass is <i>calculated</i> and confirmed using load charts and standard calculations.</p> <p>2.4. Loads in <i>slings</i> and equipment are calculated to suit job requirements.</p>
3. Sling loads.	<p>3.1. <i>Lifting devices</i> are assembled and erected for the movement of load.</p> <p>3.2. Using appropriate <i>load slinging method</i>, loads are slung to <i>crane</i> ready for lifting.</p>
4. Shift loads.	<p>4.1. Loads are shifted ensuring stability and in compliance with work method statement.</p> <p>4.2. Load is directed to landing position using communications in compliance with Australian standards and recognised work practices.</p> <p>4.3. Load is landed in required position on packing or bearers.</p>
5. Remove dogging equipment.	<p>5.1. Load shifting equipment is dismantled and inspected for wear.</p> <p>5.2. Logbook and site records are completed to company requirements.</p>
6. Clean up.	<p>6.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification.</p> <p>6.2. Tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturer recommendations and standard work practices.</p> <p>6.3. Work completion procedures are applied and relevant personnel notified that work is finished.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills for this unit are:

REQUIRED SKILLS AND KNOWLEDGE

- communication skills to:
 - determine requirements
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - follow instructions
 - read and interpret:
 - documentation from a variety of sources
 - drawings and specifications
 - report faults
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication, such as hand signals
- evaluating own actions and making judgments about performance and necessary improvements
- identifying and accurately reporting to appropriate personnel any faults in tools, equipment or materials
- organisational skills, including the ability to plan and set out work
- recognising procedures, following instructions, responding to change and contributing to workplace responsibilities, such as current work site environmental and sustainability frameworks or management systems
- teamwork skills to coordinate own work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technological skills to:
 - use a range of mobile technology, such as two-way radio and mobile phones
 - voice and hand signals to access and understand site-specific instructions.

Required knowledge

Required knowledge for this unit is:

- crane operations and limitations
- designs and functions of lifting equipment
- dogging equipment
- dogging techniques
- elevated work platforms
- general construction terminology
- job safety analysis (JSA) and safe work method statements
- logbooks
- material safety data sheets (MSDS)
- materials storage and environmentally friendly waste management
- plans, drawings and specifications
- processes for the calculation of material requirements

REQUIRED SKILLS AND KNOWLEDGE

- quality requirements
- relevant Acts, regulations and codes of practice
- safe working at heights and fall arrest
- safe working load tags
- signalling methods and communications
- types, characteristics, uses and limitations of plant, tools and equipment
- weather and ground considerations
- workplace and equipment safety requirements.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- locate, interpret and apply relevant information, standards and specifications
- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations
- comply with organisational policies and procedures including quality requirements
- safely and effectively operate and use tools, plant and equipment
- communicate and work effectively and safely with others
- as a minimum, read tags, sling, load, direct and land loads in conjunction with a slewing

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mobile crane with a telescopic boom and a winch, out of sight for:

- rigid heavy loads to two thirds capacity of the crane
- luff movements, boom retract and boom extend, slew right and slew left, winch up and down in combination
- a flexible load with a minimum of three lifting points
- using hand signals and whistle from minimum radius to maximum radius.

Context of and specific resources for assessment This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of

EVIDENCE GUIDE

the Construction, Plumbing and Services Training Package

- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Information includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- MSDS
- memos
- regulatory and legislative requirements pertaining to performing dogging
- relevant Australian standards
- safe work procedures relating to performing dogging
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.
- assessment of conditions and hazards
- determination of work requirements and safety plans and policies
- equipment defect identification
- work site inspection.

Planning and preparation include:

Safety (OHS) is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

- emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
- handling activities that may require the assistance of others or the use of manual or mechanical lifting devices where size, weight or other issues, such as a disability are a factor
- hazard control
- hazardous materials and substances
- organisational first aid
- PPE prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the

RANGE STATEMENT

conduct of operational risk assessment and treatments associated with:

- earth leakage boxes
- lighting
- power cables, including overhead service trays, cables and conduits
- restricted access barriers
- surrounding structures
- traffic control
- trip hazards
- work site visitors and the public
- working at heights
- working in confined spaces
- working in proximity to others
- use of firefighting equipment
- use of tools and equipment
- workplace environmental requirements and safety.

Tools and equipment include:

- brick cages
- kibbles
- personnel cages
- rescue cages
- rubbish bins
- spreader bars and beams.

Quality requirements include:

- internal company quality policy and standards
- manufacturer specifications, where specified
- relevant regulations, including Australian standards
- workplace operations and procedures.

Environmental requirements include:

- clean-up management
- noise
- vibration
- waste management.

Calculations include:

- delivery dockets
- load charts
- load share
- pre-cast compliance charts
- safe working loads
- standard calculations.

RANGE STATEMENT

- Slings*** include:
- chain
 - flexible steel wire rope
 - natural or synthetic fibre.
- Lifting devices***:
- include:
 - eye bolts
 - lifting clutches
 - shackles
 - snatch blocks
 - tags
 - may include:
 - collared eye bolts
 - equalizing sheaves
 - lifting lugs
 - rigging screws
 - turn buckles.
- Load slinging methods*** include:
- straight sling
 - adjustable sling
 - reeved sling
 - inclined sling.
- Cranes*** include:
- fixed cranes
 - hydraulic mobile cranes
 - lattice boom mobile cranes
 - slewing cranes
 - tower cranes.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Co-requisite units Nil

Functional area

Functional area

CPCCOHS1001A Work safely in the construction industry

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to undertake Occupational Health and Safety (OHS) induction training within the construction industry.

It requires the ability to demonstrate personal awareness of OHS legislative requirements, and the basic principles of risk management and prevention of injury and illness in the construction industry.

Licensing requirements will apply to this unit of competency depending on the regulatory requirements of each jurisdiction.

Application of the Unit

Application of the unit

This unit of competency supports the attainment of the basic OHS knowledge required prior to undertaking designated work tasks within any of the sectors within the construction industry. The unit relates directly to the general induction training program specified by the *National Code of Practice for Induction for Construction Work* (ASCC 2007).

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units

Nil

Prerequisite units Nil

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify OHS legislative requirements.	<p>1.1. Applicable <i>OHS legislative requirements</i> relevant to own work, role and responsibilities are identified and explained.</p> <p>1.2. Duty of care requirements are identified.</p> <p>1.3. Own responsibilities to comply with <i>safe work practices</i> are identified and explained.</p>
2. Identify construction hazards and control measures.	<p>2.1. Basic principles of risk management are identified.</p> <p>2.2. <i>Common construction hazards</i> are identified and discussed.</p> <p>2.3. <i>Measures for controlling</i> hazards and risks are identified.</p>
3. Identify OHS communication and reporting processes.	<p>3.1. OHS communication processes, information and documentation are identified and discussed.</p> <p>3.2. Role of <i>designated OHS personnel</i> is identified and explained.</p>

ELEMENT	PERFORMANCE CRITERIA
4. Identify OHS incident response procedures.	<p>3.3. <i>Safety signs and symbols</i> are identified and explained.</p> <p>3.4. Procedures and <i>relevant authorities</i> for reporting hazards, <i>incidents</i> and injuries are identified.</p> <p>4.1. <i>General procedures</i> for responding to incidents and <i>emergencies</i> are identified and explained.</p> <p>4.2. Procedures for accessing first aid are identified.</p> <p>4.3. Requirements for the selection and use of relevant <i>personal protective equipment</i> are identified and demonstrated.</p> <p>4.4. <i>Fire safety equipment</i> is identified and discussed.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills for this unit are:

- communication skills to:
 - clarify OHS legislative requirements
 - verbally report construction hazards and risks
 - ask effective questions
 - relay information to others
 - discuss OHS issues and information
- comprehension skills to:
 - explain the basic OHS legislative requirements which will be applicable to own work
 - explain the meaning of safety signs and symbols
 - identify common construction hazards
 - discuss the basic principles of risk management.

Required knowledge

Required knowledge for this unit is:

- applicable Commonwealth, State or Territory OHS legislation, regulations, standards, codes of practice and industry standards/guidance notes relevant to own

REQUIRED SKILLS AND KNOWLEDGE

work, role and responsibilities

- basic principles of risk management and assessment for construction work
- common construction hazards
- common construction safety signage and its meanings
- general construction emergency response and evacuation procedures
- general construction work activities that require licenses, tickets or certificates of competency
- general first aid response requirements
- general procedures for raising OHS issues
- general procedures for reporting OHS hazards, accidents, incidents, emergencies, injuries, near misses and dangerous occurrences
- general procedures for responding to hazards, incidents and injuries
- general workers' compensation and injury management requirements
- OHS hierarchy of controls
- OHS responsibilities and rights of duty holders, including:
 - persons in control of construction work/projects
 - employers and self-employed persons
 - supervisors
 - employees
 - designers
 - inspectors
 - manufacturers and suppliers
- own responsibilities to comply with safe work practices relating to:
 - housekeeping
 - identification of hazards
 - preventing bullying or harassment
 - smoking
 - use of amenities
 - use of drugs and alcohol
- role of OHS committees and representatives
- types of common personal protective equipment and fire safety equipment
- types of OHS information and documentation.

Evidence Guide

EVIDENCE GUIDE

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence must confirm personal awareness of the following:

- applicable OHS legislative and safety requirements for construction work including duty of care
- the range of common construction hazards and procedures for the assessment of risk and application of the hierarchy of control
- OHS communication processes, information and documentation including the role of OHS committees and representatives, the meaning of common safety signs and symbols, and procedures for reporting hazards, incidents and injuries
- general procedures for responding to incidents and emergencies including evacuation, first aid, fire safety equipment and PPE.

Context of and specific resources for assessment

- Resources must be available to support the program including participant materials and other information or equipment related to the skills and knowledge covered by the program.
- It is recommended that the assessment tool designed specifically to support this unit of competency will provide consistency in assessment outcomes.
- Where applicable, physical resources should include equipment modified for people with disabilities
- Access must be provided to appropriate assessment support when required.
- Assessment processes and techniques must be culturally appropriate, and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed
- In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in such a

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manner as is appropriate to the oracy, language and literacy levels of the operator, any cultural issues that may affect responses to the questions, and reflecting the requirements of the competency and the work being performed.

Method of assessment

Assessment methods may include more than one of the following:

- practical assessment
- oral questioning
- written test
- work-based activities
- simulated project based activity

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS legislative requirements relate to:

- Australian standards
- construction industry OHS standards and guidelines
- duty of care
- health and safety representatives, committees and supervisors
- licences, tickets or certificates of competency
- National Code of Practice for Induction Training for Construction Work
- national safety standards
- OHS and welfare Acts and regulations
- safety codes of practice.

Duty of care requirements relate to:

- legal responsibility under duty of care to do everything reasonably practicable to protect others from harm

RANGE STATEMENT

- Safe work practices*** include:
- own responsibilities to comply with safe work practices, including activities that require licences, tickets or certificates of competency
 - relevant state OHS requirements, including employers and self-employed persons, persons in control of the work site, construction supervisors, designers, manufacturers and suppliers, construction workers, subcontractors and inspectors.
- Risk*** relates to:
- access to site amenities, such as drinking water and toilets
 - general requirements for safe use of plant and equipment
 - general requirements for use of personal protective equipment and clothing
 - housekeeping to ensure a clean, tidy and safer work area
 - no drugs and alcohol at work
 - preventing bullying and harassment
 - smoking in designated areas
 - storage and removal of debris.
 - likelihood of a hazard causing injury or harm.
- Principles of risk management*** include:
- assessing the risks involved
 - consulting and reporting ensuring the involvement of relevant workers
 - controlling the hazard
 - identifying hazards
 - reviewing to identify change or improvement.
- Hazard*** relates to:
- any thing (including an intrinsic property of a thing) or situation with the potential to cause injury or harm.
- Common construction hazards*** include:
- confined spaces
 - electrical safety
 - excavations, including trenches
 - falling objects
 - hazardous substances and dangerous goods
 - HIV and other infectious diseases
 - hot and cold working environments
 - manual handling
 - noise
 - plant and equipment

RANGE STATEMENT

Measures for controlling risk to eliminate or minimise hazards in accordance with the hierarchy of control include:

- traffic and mobile plant
- unplanned collapse
- ultraviolet (UV) radiation
- working at heights.
- elimination
- substitution
- isolation
- engineering control
- administrative control
- personal protective equipment.

OHS communication processes include:

- discussions with OHS representatives
- OHS meetings
- OHS notices, newsletters, bulletins and correspondence
- OHS participative arrangements
- processes for raising OHS issues
- toolbox talks
- workplace consultation relating to OHS issues and changes.

OHS information and documentation includes:

- accident and incident reports
- Acts and regulations
- Australian standards
- codes of practice
- construction documentation and plans
- emergency information contact
- evacuation plans
- guidance notes
- job safety analyses
- labels
- material safety data sheets (MSDS)
- proformas for reporting hazards, incidents and injuries
- reports of near misses and dangerous occurrences
- risk assessments
- safe work method statements
- safety meeting minutes
- site safety inspection reports.
- first aid officers
- OHS committee members

Designated OHS personnel includes:

RANGE STATEMENT

- Safety signs and symbols*** include:
- OHS representatives
 - supervisors.
 - emergency information signs (e.g. exits, equipment and first aid)
 - fire signs (e.g. location of fire alarms and firefighting equipment)
 - hazard signs (e.g. danger and warning)
 - regulatory signs (e.g. prohibition, mandatory and limitation or restriction)
 - safety tags and lockout (e.g. danger tags, out of service tags).
- Relevant authorities*** include:
- emergency services (e.g. police, ambulance, fire brigade and emergency rescue)
 - OHS regulatory authority
 - supervisor.
- Incidents*** include:
- accidents resulting in personal injury or damage to property
 - near misses or dangerous occurrences which do not cause injury but may pose an immediate and significant risk to persons or property, and need to be reported so that action can be taken to prevent recurrence, for example:
 - breathing apparatus malfunctioning to the extent that the user's health is in danger
 - collapse of the floor, wall or ceiling of a building being used as a workplace
 - collapse or failure of an excavation more than 1.5 metres deep (including any shoring)
 - collapse or partial collapse of a building or structure
 - collapse, overturning or failure of the load bearing of any scaffolding, lift, crane, hoist or mine-winding equipment
 - damage to or malfunction of any other major plant
 - electric shock.
 - electrical short circuit, malfunction or explosion
 - uncontrolled explosion, fire or escape of gas, hazardous substance or steam
 - any other unintended or uncontrolled incident or event arising from operations carried on at a

RANGE STATEMENT

- General procedures* for responding to incidents and emergencies include:
- workplace.
 - basic emergency response (keep calm, raise alarm, obtain help)
 - evacuation
 - notification of designated OHS personnel and authorities
 - notification of emergency services (e.g. when and how)
 - referring to site emergency plans and documentation.
- Emergencies* include:
- chemical spill
 - fire
 - injury to personnel
 - structural collapse
 - toxic and/or flammable vapours emission
 - vehicle/mobile plant accident.
- Personal protective equipment* includes:
- aprons
 - arm guards
 - eye protection
 - gloves
 - hard hat
 - hearing protection
 - high visibility retro reflective vests
 - protective, well fitting clothing
 - respiratory protection
 - safety footwear
 - UV protective clothing and sunscreen.
- Fire safety equipment* includes:
- breathing apparatus
 - fire blankets
 - firefighting equipment.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area

CPCPCM2040A Read plans and calculate plumbing quantities

Modification History

Changes to performance criteria, required skills and knowledge, range statement and critical aspects

Not equivalent to CPCPCM2004A

Unit Descriptor

This unit of competency specifies the outcomes required to use and interpret plans and specifications associated with construction work, and accurately complete measurements and calculations to establish quantities of materials for the plumbing and services industry.

The unit requires the interpretation of plans, drawings and specifications to interpret requirements, and making measurements and calculations to determine quantities of plumbing materials.

Application of the Unit

This unit of competency supports skills to read and interpret plans for a variety of plumbing and services applications.

Site location for work application may be either domestic or commercial and may be a new work site or an existing structure being renovated, extended, restored or maintained. It may be a customer's premises or employer's workplace, either on or off-site.

Licensing/Regulatory Information

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised

unit of competency. text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

- | | | | |
|---|---|-----|---|
| 1 | Prepare for work. | 1.1 | Plans, drawings, specifications and standards are obtained and required calculations are identified. |
| | | 1.2 | Work health and safety (WHS) requirements associated with reading plans, calculating plumbing requirements and the workplace environment are adhered to throughout the work. |
| | | 1.3 | Quality assurance requirements are identified and adhered to according to workplace requirements. |
| | | 1.4 | Work area and materials are prepared to support the efficient reading of plans and the calculation of plumbing requirements. |
| 2 | Identify types of plans and drawings and their functions. | 2.1 | Plans and drawings used in the plumbing industry are identified. |
| | | 2.2 | Key functions of each type of drawing are identified. |
| | | 2.3 | Key users of drawings are identified. |
| 3 | Identify commonly used scales, symbols and abbreviations. | 3.1 | Commonly used scales, symbols and abbreviations are used. |
| | | 3.2 | Function of legend is understood and identified. |
| 4 | Locate and identify key features on a services plan. | 4.1 | Key features and dimensions of sectional details and elevations on a plan are identified and located. |
| | | 4.2 | Location and types of services are identified. |
| | | 4.3 | General and structural features and major horizontal and |

- vertical measurements are located.
- 5 Read and interpret job specifications.
- 5.1 Purpose of job specification is identified.
 - 5.2 Details in job specification are obtained.
 - 5.3 Job specifications are read in conjunction with plans.
- 6 Obtain measurements and perform calculations
- 6.1 Work *measurements* are obtained.
 - 6.2 Quality assurance requirements associated with calculations are applied.
 - 6.3 Measurements and dimensions are obtained from plans.
 - 6.4 Simple *calculations* are carried out.
- 7 Calculate material quantities.
- 7.1 *Material* quantities are calculated and recorded from plans and specifications according to workplace procedure.
 - 7.2 *Information* from plans, *specifications* and work area are obtained from job instructions.
 - 7.3 Measurements are identified and recorded.
- 8 Clean up.
- 8.1 Work area is cleared and materials disposed of, reused or recycled according to legislation, regulations, codes of practice, and job specification.
 - 8.2 *Tools and equipment* are cleaned, checked, maintained and stored according to manufacturer recommendations and workplace procedures.
 - 8.3 Information is accessed and documentation completed according to workplace requirements.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to:
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - follow instructions
 - request relevant documentation and information
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication, such as hand signals
- literacy skills to:
 - complete relevant workplace documentation
 - read and interpret:
 - documentation from a variety of sources
 - plans and specifications
 - record calculations, measurements and material quantities
- numeracy skills to apply measurements and calculations
- plan-reading skills, including:
 - boundaries
 - easements (sewer, stormwater, etc.)
 - existing services
 - orientation
 - pedestrian and vehicular access
 - preservation orders
 - set backs
 - site features
 - site geography, including levels
 - surrounding buildings and fences
- planning and organising skills to plan and set out work
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities

Required knowledge

- job safety analysis (JSA) and safe work method statements (SWMS)
- measurements, calculations and quantities
- range of plans and specifications relevant to the plumbing and services industry
- relevant Acts, regulations and codes of practice
- simple industry calculations

- symbols, dimensions, terminology and key features of plans
- tools, equipment and materials relative to plans, drawings and specifications
- work schedules, work plans, charts, work bulletins and memos
- workplace safety requirements

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment providing that simulated or project-based assessment techniques fully replicate plumbing and services workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of:

- locating, interpreting and applying relevant information, standards and specifications for reading plans and calculating plumbing quantities
- applying safety requirements throughout the work sequence, including electrical safety requirements and the use of personal protective clothing and equipment
- given the plans and specifications for a project, completing the following in respect of interpreting the plans and determining quantities:
 - apply sustainability principles and concepts
 - identify type and purpose of the plan and drawing
 - identify its dimensions, symbols, abbreviations, key features, title and reference date (as current version)
- identify material types from the specifications, measurements and calculations, indicating items of plumbing material required, ensuring:
 - correct selection and use of appropriate processes, tools and equipment
 - completion of all work to specification

- compliance with regulations, standards and organisational quality procedures and processes.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the minimum task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry-related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be

transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Work health and safety is to be according to commonwealth, state and territory legislation and regulations and may include:

- handling of materials
- hazard control, including of electrical hazards
- hazardous materials and substances
- personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- use of firefighting equipment
- use of first aid equipment

- use of tools and equipment
- workplace environment and safety.

Quality assurance requirements may include:

- Australian standards
- environmental policy
- Environment Protection Authority (EPA)
- internal company quality assurance policy and risk management strategy
- International Standards Organisation
- site safety plan
- workplace operations and procedures.

Types of **drawings** may include:

- drainage plans
- elevations and sections
- floor plans
- hydraulic plans
- mechanical services and drainage plans
- sanitary plans
- sewerage plans
- site plans
- specifications.

Key features of detailed **elevations and plans** may include:

- boundaries
- building lines
- cross-sections of construction details
- easements
- layout of rooms
- location of works relative to other buildings
- orientation
- service locations
- shape of building and structure
- type of construction
- type of structure, including structural members
- vertical and horizontal measurements.

Measurements may include:

- all dimensions used in plumbing
- laser or similar technology
- SI units of measurement
- the use of:

- calipers
- dividers
- rulers
- squares
- tape measures.

Calculations:

- are to be performed manually or with the aid of a calculator
- require numeracy skills to apply the basic arithmetic calculations of addition, subtraction, multiplication and division in order to estimate simple projects and determine consumables required for a task, and may include:
 - area
 - circumference
 - diameter
 - gradient
 - length
 - mass
 - perimeter
 - pressure
 - ratios (e.g. ingredients, elements and triangulation)
 - scales
 - volume.

Materials for reading plans and calculating plumbing quantities may include:

- drawings
- plans
- specifications.

Information may include:

- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions
- organisation work specifications and requirements
- recognised formulas or tables accepted by the regulatory authority
- regulatory and legislative requirements, particularly those pertaining to:
 - building codes
 - WHS and environmental requirements

- plumbing and gasfitting authority regulations
- relevant Australian standards
- safe work procedures relating to reading plans and calculating plumbing requirements
- verbal, written and graphical instructions, including:
 - charts and hand drawings
 - plans and sketches
 - job drawings
 - material safety data sheets (MSDS)
 - memos
 - plans and specifications
 - signage
 - work bulletins
 - work schedules.

Key features of *specifications* may include:

- material details
- preferred suppliers
- quality of finishes
- quantities
- specific skill requirements.

Tools and equipment may include:

- calculators
- laser measuring devices
- rulers, dividers, tape measures or squares.

Unit Sector(s)

Functional area

Unit sector Plumbing and services

Custom Content Section

Not applicable.

CPCPCM2043A Carry out WHS requirements

Modification History

Changes to application, elements and performance criteria, required skills and knowledge, range statement and critical aspects

Not equivalent to CPCPCM2023A

Unit Descriptor

This unit of competency specifies the outcomes required to carry out work health and safety (WHS) requirements through safe work practices in a plumbing and services work environment.

The unit requires the performance of work in a safe manner through awareness of risks, work requirements and the planning and performance of safe work practices with concern for personal safety and the safety of others.

It includes the initial response to workplace emergencies; the safe use of electricity; the identification of hazardous materials, including asbestos; and compliance with legislated work safety practices.

Application of the Unit

This unit of competency supports safe work practices for the plumbing and services industry.

Site location for work application may be either domestic or commercial and may be a new work site or an existing structure or fitting being renovated, extended, restored or maintained. It could also be conducted in an on or off-site workshop or at a customer's premises.

The unit does not cover the removal of asbestos, which is a licensed activity.

Licensing/Regulatory Information

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

- | | | |
|---|--|---|
| 1 | Participate in workplace induction. | <p>1.1 <i>Workplace induction</i> is received.</p> <p>1.2 Location of emergency equipment is identified.</p> <p>1.3 Current workplace emergency and evacuation procedures are identified.</p> <p>1.4 Identify safe working conditions with employer.</p> <p>1.5 Identify employee and employer rights and responsibilities regarding safe working conditions.</p> |
| 2 | Assess risks. | <p>2.1 Hazards in the work area are identified, assessed and reported to designated personnel.</p> <p>2.2 WHS issues and risks in the work area are identified, assessed and reported to designated personnel.</p> <p>2.3 <i>Safe work practices</i>, procedures and instructions are followed.</p> <p>2.4 WHS, hazard, accident or incident reports are completed according to workplace procedures and <i>statutory and regulatory authorities</i> and legislation.</p> |
| 3 | Identify hazards and hazardous materials on work site. | <p>3.1 Hazardous materials on a work site are identified, secured and tagged using appropriate signs and symbols; and if appropriate, handled and used according to company and legislated procedures.</p> <p>3.2 Measures for controlling risks and construction hazards</p> |

- are applied effectively and immediately.
- 3.3 ***Asbestos-containing materials (ACM) are identified*** on a work site ***and reported*** to designated personnel.
- 4 Plan and prepare for safe work practices.
- 4.1 Quality assurance requirements of company operations and safe work practices are identified and adhered to.
- 4.2 Personal protective equipment (PPE) is selected, correctly fitted and used according to the requirements of the job.
- 4.3 Tools and equipment are selected consistent with safe work practice requirements, checked for serviceability, and any faults are reported to supervisor.
- 4.4 Required barricades, hoardings and signage are determined and erected at job location.
- 4.5 Material safety data sheets (MSDS) are identified and applied.
- 4.6 ***Sustainability principles and concepts*** are observed when preparing for and undertaking work process.
- 5 Use safe work practices to carry out work.
- 5.1 Work is carried out safely and according to state or territory statutory requirements and company policy.
- 5.2 ***Safety hazards*** and common workplace accidents and incidents are identified in the course of work and reported according to policy.
- 5.3 Industry, site and personal safety rights and responsibilities are applied.
- 5.4 Prohibited tools and equipment in areas with identified asbestos are identified and isolated.
- 5.5 Firefighting equipment is selected and used according to type of fire and correct operating procedures.
- 5.6 Current site emergency and first aid procedures are followed.

- | | | |
|---|-------------------------------------|---|
| 6 | Maintain safety of self and others. | 6.1 Safety signs, identified in terms of colour and shape, symbols and alarms, are adhered to. |
| | | 6.2 Hazardous chemicals and materials are identified, handled and stored, maintaining the safety to self, others and the environment. |
| | | 6.3 Incidents are reported according to legislative requirements and workplace procedures. |
| | | 6.4 Common causes of accidents in the industry are identified and prevention measures implemented in line with site induction. |
| | | 6.5 Site area is maintained to prevent incidents and accidents and protect self and others |
| 7 | Use electricity safely. | 7.1 Safest supply and route for electrical supply are determined. |
| | | 7.2 Leads are supported and placed according to regulations. |
| | | 7.3 Power board visual check is conducted. |
| | | 7.4 Leads and equipment are checked for tags and visual damage. |
| | | 7.5 Electrical hazards are identified and reported. |
| 8 | Apply emergency response. | 8.1 Emergencies are identified. |
| | | 8.2 Emergency response is provided according to company procedures and requirements. |
| | | 8.3 Details of actions taken are reported according to company procedures and requirements using appropriate communications. |
| 9 | Clean up work site area. | 9.1 Work area is cleared and materials disposed of, reused or recycled according to legislation, regulations, codes of practice and job specifications. |
| | | 9.2 Tools and equipment are cleaned, checked, maintained and stored according to manufacturer recommendations |

and standard work practices.

- 9.3 Information is accessed and documentation completed according to workplace requirements.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to:
 - complete written reports and other relevant documentation
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication, such as hand signals
- initiative and enterprise skills to:
 - evaluate safety issues in the workplace and determine appropriate action
 - recognise WHS hazards, including asbestos, and take all opportunities to alleviate safety problems in a variety of construction work sites and environments
- initiative and enterprise skills to identify and report to appropriate personnel any faults in tools or materials
- literacy skills to read and interpret:
 - documentation from a variety of sources
 - MSDS
 - work safety procedures and instructions
- self-management skills to deal calmly and effectively with any potential safety problems and work closely with other team members and supervisors to ensure safe working conditions are maintained
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technology skills to:
 - access and understand site-specific instructions in a variety of media
 - use mobile communication technology

Required knowledge

- asbestos management code relating to prevention of exposure
- job safety analysis (JSA) and safe work method statements (SWMS)

- manual handling techniques
- MSDS
- relevant legislation, regulations and workplace requirements relating to WHS, including hazard reduction and personal safety
- requirements for working in confined spaces and at height, including on rooves
- tools and equipment prohibited from being used near identified ACM
- risk assessment
- safe work practices in normal working environment
- types, possible location and risks of ACM, including serpentine and amphibole groups and their use in common building materials
- workplace and equipment safety requirements
- workplace hazards and their precautions and reduction
- workplace response to emergencies

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment providing that simulated or project-based assessment techniques fully replicate plumbing and services workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- locate, interpret and apply relevant information, standards and specifications for applying safe work practices in the workplace
- apply safety requirements throughout the performance of work sequences, including electrical requirements and personal protective clothing and equipment
- apply sustainability principles and concepts
- undertake site and workplace induction
- correctly identify the location of ACM
- understand and apply policies and procedures for reporting presence of ACM to designated personnel
- assess workplace risks and interpret and apply safe work practices

- understand workplace requirements for emergency response, including evacuation procedures
- correctly locate and identify workplace firefighting and other safety equipment and appliances
- correctly select and use appropriate processes, tools and equipment
- safely complete all work to specification
- comply with regulations, standards and workplace instructions, procedures and processes, including reporting and documentation
- communicate and work effectively and safely with others.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the minimum task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry-related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or

simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application

- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Workplace induction may include:

- first aid officers and kits

- personnel competent and/or licensed in the safe handling of asbestos
- site induction work site locations
- specific site WHS issues
- specific site requirements.

Safe work practices are to be according to state and territory legislation and regulations and may include:

- handling of materials
- hazard control procedures and procedures for handling hazardous materials and substances
- PPE prescribed under legislation, regulations and workplace policies and practices
- use of firefighting equipment
- use of first aid equipment
- use of tools and equipment
- workplace environment and safety.

Statutory and regulatory authorities include:

- commonwealth, state or territory, and local authorities administering applicable Acts, regulations and codes of practice.

Identifying and reporting asbestos-containing materials:

- includes recognising common types of ACM that may be found in construction materials and buildings
- covers asbestos rope/fabrics, asbestos cement sheeting, asbestos cement piping and lagging on pipes, bituminous waterproof membrane, millboard, asbestos flues, sheeting under ceramic or vinyl floor or wall tiles in wet areas
- involves reporting ACM to person in control of the workplace as set out in the relevant Asbestos Management Code.

Sustainability principles and concepts:

- cover the social, economic and environmental use of resources to meet current and future needs
- may include:
 - selecting appropriate components and material
 - choosing efficient products
 - using material efficiently
 - storing and disposing of hazardous material to ensure minimal environmental impact.

Safety hazards may include:

- hazards and risks associated with tools and equipment
- inflammable materials and fire hazards
- lifting practices
- lighting, gases, electricity and water
- spillage, waste and debris
- toxic and hazardous substances
- working at heights
- working in confined spaces.

Emergencies may include:

- accidents
- fires
- injuries
- sudden illness.

Emergency response may include:

- common site signs
- equipment tags
- facility or location signs
- safety barricades and warning signs
- site direction
- traffic signs
- workplace evacuation involving staff and customers.

Unit Sector(s)

Functional area

Unit sector Plumbing and services

Custom Content Section

Not applicable.

CPCPCM2047A Carry out levelling

Modification History

Prerequisite unit updated

Changes to performance criteria, required skills and knowledge, range statement and critical aspects

Not equivalent to CPCPCM2027A

Unit Descriptor

This unit of competency specifies the outcomes required to plan and use levelling equipment to establish, record and apply those levels to the plumbing and services industry.

Application of the Unit

This unit of competency supports skills to undertake levelling operations for application in the plumbing and services industry.

Site location for work application may be either domestic or commercial and may be a new work site or an existing structure being renovated, extended, restored or maintained.

Licensing/Regulatory Information

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

Pre-Requisites

CPCPCM2043A Carry out WHS requirements

Employability Skills Information

This unit contains employability skills..

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of

performance is to be consistent with the evidence guide.

Elements and Performance Criteria

- | | | | |
|---|--------------------|-----|--|
| 1 | Prepare for work. | 1.1 | Requirements of the job are determined and various levels are obtained. |
| | | 1.2 | Work health and safety (WHS) and environmental requirements associated with levelling activities are adhered to throughout the work. |
| | | 1.3 | Quality assurance requirements are identified and adhered to according to workplace requirements. |
| | | 1.4 | Tools and equipment , including personal protective equipment, are selected and checked for serviceability. |
| 2 | Perform levelling. | 2.1 | Height to be transferred is identified from drawings, plans or instructions. |
| | | 2.2 | Levelling equipment is set up and operated according to manufacturer instructions, workplace procedures and relevant Australian standards. |
| | | 2.3 | Levels are taken, recorded and marked according to job requirements and workplace procedures within the required tolerance and specifications. |
| | | 2.4 | Sustainability principles and concepts are observed when preparing for and undertaking work process. |
| 3 | Clean up. | 3.1 | Work area is cleared and materials are disposed of, reused or recycled according to legislation, regulations, codes of practice and job specification. |
| | | 3.2 | Tools and equipment are cleaned, checked, maintained and stored according to manufacturer recommendations and workplace procedures. |
| | | 3.3 | Information is accessed and documentation completed according to workplace requirements. |

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to:
 - determine requirements, follow instructions and access information
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication, such as hand signals
- initiative and enterprise skills to identify and report to appropriate personnel any faults in tools, equipment or materials
- literacy skills to:
 - complete workplace documentation
 - read and interpret:
 - plans and specifications
 - documentation from a variety of sources
- numeracy skills to apply measurements and calculations
- planning and organising skills to plan and set out work
- technical skills to operate levelling equipment to read, record, establish and check:
 - levels: horizontal, vertical and at gradient used for the placement of plumbing and services
 - recording levels at specific points along a set out
 - recording and checking levels in drainage and sanitary excavations and plumbing services
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technology skills to:
 - access and understand site-specific instructions in a variety of media
 - use mobile communication technology

Required knowledge

- different types of levelling equipment, their applications and their method of operation
- how to access relevant information, including codes and technical standards
- job safety analysis (JSA) and safe work method statements (SWMS)
- process of establishing, recording and checking levels and alignment

- relevant statutory requirements related to establishing, recording and checking levels
- simple calculations relating to carrying out levelling
- SI system of measurements
- workplace and equipment safety requirements

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment This unit of competency could be assessed in the workplace or a close simulation of the workplace environment providing that simulated or project-based assessment techniques fully replicate plumbing and services workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit A person who demonstrates competency in this unit must be able to provide evidence of:

- locating, interpreting and applying relevant information, standards and specifications for the establishment, recording and checking of levels
- applying safety requirements throughout the work sequence, including electrical safety requirements and the use of personal protective clothing and equipment
- using either a pipe laser, rotary laser or automatic level and either boning rods or string line
- grading a pipe (or equivalent) over 10 metres on a grade to a tolerance of + or - 5mm, ensuring:
 - applying sustainability principles and concepts
 - correctly identifying, recording and checking level
 - correctly selecting and using appropriate processes, tools and equipment
 - completing all work to specification
 - complying with regulations, standards and organisational quality procedures and processes
 - communicating and working effectively and safely with others.

Context of and specific This competency is to be assessed using standard and authorised work practices, safety requirements and environmental

resources for assessment constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the minimum task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry-related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has

complete confidence in the person's demonstrated ability and applied knowledge

- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Work health and safety is to be according to commonwealth, state and territory legislation and regulations and may include:

- handling of materials
- hazard control, including of electrical hazards
- hazardous materials and substances
- personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- use of firefighting equipment
- use of first aid equipment
- use of tools and equipment
- workplace environment and safety.

Quality assurance requirements may include:

- environmental policy
- Environment Protection Authority (EPA)
- internal company quality assurance policy and risk management strategy
- International Standards Organisation
- relevant Australian standards
- site safety plan
- workplace operations and procedures.

- Tools and equipment*** may include:
- hand tools
 - measuring equipment
 - string line.
- Levelling equipment*** may include:
- boning rods
 - rotating laser level
 - pipe laser level
 - spirit level
 - water level.
- Sustainability principles and concepts***
- cover the social, economic and environmental use of resources to meet current and future needs
 - may include:
 - efficient use and recycling of tools and equipment
 - disposing of waste material to ensure minimal environmental impact
 - energy efficiency
 - water efficiency.
- Information*** may include:
- building codes
 - charts and hand drawings
 - instructions issued by authorised organisational or external personnel
 - job drawings
 - manufacturer specifications and instructions
 - material safety data sheets (MSDS)
 - memos
 - WHS and environmental requirements
 - organisation work specifications and requirements
 - plans and sketches
 - regulatory and legislative requirements, particularly those pertaining to plumbing and gasfitting authority regulations
 - relevant Australian standards
 - safe work procedures relating to handling and storing levelling equipment
 - signage
 - verbal, written and graphical instructions
 - work bulletins
 - work schedules, plans and specifications.

Unit Sector(s)

Functional area

Unit sector Plumbing and services

Custom Content Section

Not applicable.

CPCPIG2021A Design domestic urban irrigation systems

Modification History

Prerequisite unit added to unit

Changes to descriptor, performance criteria, required skills and knowledge, range statement and critical aspects

Not equivalent to CPCPIG2011A

Unit Descriptor

This unit of competency specifies the outcomes required to prepare basic designs and irrigation drawings for domestic irrigation systems.

Application of the Unit

Work is normally undertaken in a drafting office environment. Location for drawing and design application may be either domestic or commercial, and may be a new work site or an existing structure being renovated, extended, restored or maintained.

Licensing/Regulatory Information

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

Pre-Requisites

CPCPCM2043A Carry out WHS requirements

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

- | | | |
|---|--------------------------------|---|
| 1 | Prepare for work. | 1.1 Site survey is conducted of proposed irrigation area according to client requirements. |
| | | 1.2 Work health and safety (WHS) and environmental requirements associated with design of domestic irrigation systems are adhered to throughout the work. |
| | | 1.3 Quality assurance requirements are identified and adhered to according to workplace requirements. |
| | | 1.4 Tasks are planned and sequenced in conjunction with others involved in or affected by the work and statutory and regulatory authorities' requirements. |
| | | 1.5 Tools and equipment for preparing basic irrigation designs and drawings are selected and checked for serviceability. |
| | | 1.6 Work area is prepared to support efficient design of domestic irrigation systems. |
| 2 | Identify drawing requirements. | 2.1 Areas requiring irrigation and system design components are identified. |
| | | 2.2 Information is obtained on the soil type, ground slope, contours and prevailing wind. |
| | | 2.3 Underground services, buildings, paths and other permanent structures are located and noted. |
| | | 2.4 Water supply is located and its influence on design requirements is determined. |
| | | 2.5 Appropriate emitters are selected to suit function and design requirements. |
| 3 | Design irrigation system. | 3.1 Site plan is drawn to include structures, paths and property boundaries. |

- 3.2 Garden areas are sketched to include locations of lawns, garden beds, trees, vegetable patches or ferneries.
 - 3.3 Pipe runs and water emitters are sketched to design requirements.
 - 3.4 Sizes of pipes are calculated using standard data and information is recorded in required format.
 - 3.5 List of *materials* is compiled to include number and type of water emitters, control valves, quantities of pipes, fittings and components.
 - 3.6 *Sustainability principles and concepts* are applied throughout the design process.
 - 3.7 Drawing and design are submitted for approval.
- 4 Clean up.
- 4.1 Work area is cleared and materials disposed of, reused or recycled according to legislation, regulations, codes of practice and job specification.
 - 4.2 Tools and equipment are cleaned, checked, maintained and stored according to manufacturer recommendations and workplace procedures.
 - 4.3 Documentation is completed according to workplace requirements.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to:
 - access information
 - determine requirements
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - follow instructions
 - use language and concepts appropriate to cultural differences

- use and interpret non-verbal communication, such as hand signals
- initiative and enterprise skills to identify and report to appropriate personnel any faults in tools, equipment or materials
- literacy skills to:
 - compile list of materials
 - complete workplace documentation
 - read and interpret:
 - documentation from a variety of sources
 - plans and specifications
 - record information
- technical skills to design and draw a domestic urban irrigation system, including:
 - identifying material requirements
 - selecting and locating components
 - site layout
 - site requirements and structures
- numeracy skills to apply measurements and calculations
- planning and organising skills to:
 - plan and sequence tasks with others
 - plan and set out work
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technology skills to:
 - access and understand site-specific instructions in a variety of media
 - use mobile communication technology

Required knowledge

- job safety analysis (JSA) and safe work method statements (SWMS)
- process and workplace requirements for basic irrigation design
- processes for accessing information and for calculating material requirements
- properties of water, including pressure and flow rates
- relevant statutory and authority requirements related to drawing and installing irrigation systems
- SI system of measurement
- specifications of the range of irrigation products available
- standards applicable to the installation
- technologies for irrigation measurement and drawings
- various types of irrigation systems, including types of materials and components used
- workplace and equipment safety requirements

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment providing that simulated or project-based assessment techniques fully replicate plumbing and services workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of:

- locating, interpreting and applying relevant information, standards and specifications to the design of domestic irrigation systems
- applying safety requirements throughout the work sequence, including electricity safety requirements and the use of personal protective clothing and equipment
- given the site plan and specifications for the irrigation of a 200 square metre garden (of lawn, shrubs, trees and flowers), designing and preparing a drawing of the system, incorporating automatic timers and controls, varying sprinkler heads and zones, and indicating the materials required (by number and type), ensuring:
 - application of sustainability principles and concepts
 - correct identification of location, design and details of proposed system
 - correct selection and use of appropriate processes, tools and equipment
 - completing all work to specification
 - compliance with regulations, standards and organisational quality procedures and processes
 - communicating and working effectively and safely with others.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and

environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the minimum task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry-related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace

- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Work health and safety is to be according to commonwealth, state and territory legislation and regulations and may include:

- handling of materials, including hazardous materials and substances
- hazard control
- personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- use of firefighting equipment
- use of first aid equipment
- use of tools and equipment
- workplace environment and safety.

Environmental requirements cover water quality management and may

- clean-up protection
- stormwater protection
- waste management.

include:

Quality assurance requirements

may include:

- Environment Protection Authority (EPA)
- internal company quality assurance policy and risk management strategy
- International Standards Organisation
- site safety plan
- workplace operations and procedures.

Statutory and regulatory authorities

include:

- commonwealth, state or territory, and local authorities administering applicable Acts, regulations and codes of practice.

Tools and equipment may include:

- calculator
- computer design software
- drawing and drafting equipment
- laser measuring devices
- measuring equipment.

System design components may include:

- backflow prevention devices
- controls
- pipework
- valves
- water emitters, which may include:
 - drip emitters
 - gear drive
 - impact
 - in-line turbo drippers
 - mist sprays
 - oscillating
 - pop up
 - pulsating
- selection of water emitters, based on:
 - automatic control systems
 - manufacturer specifications
 - physical site conditions
 - site requirements
 - subsoil systems
 - types of plants requiring irrigated water.

Information may include:

- charts and hand drawings
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions
- material safety data sheets (MSDS)
- memos
- maps
- organisation work specifications and requirements
- regulatory and legislative requirements, particularly those pertaining to:
 - building codes
 - WHS and environmental requirements
 - plumbing regulations
- relevant Australian standards
- safe work procedures relating to the design of domestic irrigation systems
- signage
- sketches and plans, including job plans
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.

Materials may include:

- drafting and drawing equipment
- plans.

Sustainability principles and concepts:

- cover the current and future social, economic and environmental use of resources
- may include:
 - efficient use of material
 - minimising water wastage
 - considering use of alternative water supply
 - selecting appropriate components and material to ensure minimal environmental impact.

Unit Sector(s)

Functional area

Unit sector Plumbing and services

Custom Content Section

Not applicable.

CPCPWT3027A Connect irrigation systems from drinking water supply

Modification History

Prerequisite unit changed

Minor changes throughout the unit

Not equivalent to CPCPWT3017A

Unit Descriptor

This unit of competency specifies the outcomes required to connect irrigation and watering systems from a drinking water supply. It does not include the commissioning of backflow prevention devices or arrangements.

Application of the Unit

Site location for work application may be either domestic or commercial, and may be a new work site or an existing structure being renovated, extended, restored or maintained.

Licensing/Regulatory Information

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

Pre-Requisites

CPCPCM2043A Carry out WHS requirements

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent

with the evidence guide.

Elements and Performance Criteria

- | | | |
|----------|--|--|
| 1 | Prepare for work. | <p>1.1 Plans and specifications are obtained.</p> <p>1.2 Work health and safety (WHS) and environmental requirements associated with connecting irrigation systems from a drinking water supply are adhered to throughout the work.</p> <p>1.3 Quality assurance requirements are identified and adhered to according to workplace requirements.</p> <p>1.4 Tasks are planned and sequenced in conjunction with others involved in or affected by the work and statutory and regulatory authorities' requirements.</p> <p>1.5 Tools and equipment for connecting irrigation systems, including personal protective equipment, are selected and checked for serviceability.</p> <p>1.6 Work area is prepared to support efficient connection of irrigation systems from a drinking water supply.</p> |
| 2 | Identify installation requirements. | <p>2.1 Connection size and hazard rating are determined from plans, specification, relevant Australian standards and/or site inspection using relevant information.</p> <p>2.2 Valve is sized according to plans and specification.</p> <p>2.3 Back flow prevention devices are confirmed as being according to hazard rating.</p> <p>2.4 Materials and equipment are identified, ordered and collected according to workplace procedures.</p> <p>2.5 Materials and equipment are checked for compliance with relevant Australian standards, docket and order form, and for acceptable condition.</p> <p>2.6 Sustainability principles and concepts are observed when preparing for and undertaking work process.</p> |

- 3 Connect and test system.**
- 3.1 Excavation is set out and made according to plans and specifications and undertaken with consideration given to existing structures and services.
 - 3.2 Service pipe is isolated and cut to accommodate take off branch according to authorities' requirements.
 - 3.3 Back flow prevention device is fitted according to relevant Australian standards and manufacturer specifications.
 - 3.4 System is connected and flushed to required standard.
 - 3.5 Water supply is restored and system tested according to relevant Australian standards.
 - 3.6 Ground surface is restored.
- 4 Clean up.**
- 4.1 Work area is cleared and materials disposed of, reused or recycled according to legislation, regulations, codes of practice and job specification.
 - 4.2 Tools and equipment are cleaned, checked, maintained and stored according to manufacturer recommendations and workplace procedures.
 - 4.3 Documentation is completed according to workplace requirements.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to:
 - access information
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - follow instructions
 - identify requirements

- use language and concepts appropriate to cultural differences
- use and interpret non-verbal communication, such as hand signals
- initiative and enterprise skills to identify and accurately report to appropriate personnel any faults in tools, equipment or materials
- literacy skills to:
 - complete workplace documentation
 - read and interpret:
 - documentation from a variety of sources
 - plans and specifications
- numeracy skills to apply measurements and calculations
- planning and organising skills to:
 - plan and sequence tasks with others
 - plan and set out work
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technical skills to cut into a water supply and install a take-off branch and fitting valves and backflow prevention devices for an irrigation or watering system
- technology skills to:
 - access and understand site-specific instructions in a variety of media
 - use mobile communication technology

Required knowledge

- characteristics and application of different pipes and fittings, including fixing and joining techniques and methods
- drinking water supplies and protection measures
- implications of cross connections and air gaps
- job safety analysis (JSA) and safe work method statements (SWMS)
- process of connecting irrigation systems from a drinking water supply
- processes for accessing information and for calculating material requirements
- properties of water, including pressure and flow rates
- relevant statutory requirements related to connecting irrigation systems from a drinking water supply
- SI system of measurement
- Australian standards applicable to the connection
- use of test equipment and procedures
- various types of irrigation systems and types of materials used
- workplace and equipment safety requirements

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment providing that simulated or project-based assessment techniques fully replicate plumbing and services workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of:

- locating, interpreting and applying relevant information, relevant Australian standards and specifications to connect an irrigation system from a drinking water supply
- applying safety requirements throughout the work sequence, including electrical safety requirements and the use of personal protective clothing and equipment
- given the plans and specifications, connecting an irrigation system to a drinking water supply, ensuring:
 - application of sustainability principles and concepts
 - correct identification of location, design and details of proposed installations
 - correct selection and use of appropriate processes, tools and equipment
 - completing all work to specification
 - compliance with regulations, relevant Australian standards and organisational quality procedures and processes
 - communicating and working effectively and safely with others.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will

usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the minimum task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe working practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry-related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a

number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge

- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Work health and safety is to be according to commonwealth, state and territory legislation and regulations and may include:

- handling of materials
- hazard control
- identifying and testing for electrical hazards
- personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including recognising and preventing hazards associated with:
 - hazardous materials and substances
 - other machines
 - surrounding structure and facilities
 - trees
 - trip hazards
 - underground services
 - uneven and unstable terrain

- use of tools and equipment
- work site visitors and the public
- working at heights
- working in confined spaces
- working in proximity to others
- use of firefighting equipment
- use of first aid equipment
- workplace environment and safety.

Environmental requirements cover water quality management and may include:

- clean-up protection
- waste management.

Quality assurance requirements may include:

- environment policy
- Environment Protection Authority (EPA)
- internal company quality assurance policy and risk management strategy
- International Standards Organisation
- site safety plan
- workplace operations and procedures.

Statutory and regulatory authorities include:

- commonwealth, state or territory, and local authorities administering applicable Acts, regulations and codes of practice.

Tools and equipment may include:

- chain blocks
- electrical bonding and bridging strap
- elevated work platforms
- forklifts
- hand and power tools
- hand excavation equipment
- hand trolleys
- hoists and jacks
- lifting and load shifting equipment
- measuring equipment
- mechanical excavation equipment
- rollers
- scaffolding
- silver solder and brazing equipment
- trench shoring equipment.

Information may include:

- charts and hand drawings
- instructions issued by authorised organisational or external personnel
- job drawings
- manufacturer specifications and instructions
- material safety data sheets (MSDS)
- memos
- organisation work specifications and requirements
- plans and sketches
- regulatory and legislative requirements, particularly those pertaining to:
 - building codes
 - WHS and environmental requirements
 - plumbing regulations
- relevant Australian standards
- safe work procedures relating to connecting irrigation systems from a drinking water supply
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.

Materials may include:

- backflow prevention devices
- copper tube
- fittings and connections
- joints
- polymer pipes
- valves.

Sustainability principles and concepts:

- cover the current and future social, economic and environmental use of resources
- may include:
 - selecting appropriate material to ensure minimal environmental impact
 - efficient energy and water use
 - efficient use and recycling of material
 - disposing of waste material to ensure minimal environmental impact.

Unit Sector(s)

Functional area

Unit sector Plumbing and services

Custom Content Section

Not applicable.

CPPFES2005A Demonstrate first attack fire fighting equipment

Modification History

Revised unit

Unit updated and equivalent to PRMPFES05B Use portable fire fighting equipment

Unit Descriptor

This unit of competency specifies the outcomes required to demonstrate the use of portable fire extinguishers, fire hose reels and fire blankets.

Application of the Unit

This unit of competency supports fire protection equipment service technicians responsible for demonstrating to customers how to interpret and follow manufacturers' instructions on various first attack firefighting equipment in emergency situations.

Licensing/Regulatory Information

Work in this area must be completed according to relevant legislative, industry, customer and organisational requirements, including occupational health and safety (OHS) policies and procedures.

Different states and territories may have regulatory mechanisms that apply to this unit. Candidates are advised to check for regulatory limitations.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of

performance is to be consistent with the evidence guide.

Elements and Performance Criteria

1	Demonstrate correct use of portable fire extinguishers to extinguish simulated fires.	1.1	<i>Fire type and classification</i> are determined.
		1.2	<i>Fire extinguishers</i> are selected to attack different fires.
		1.3	Safe use of fire extinguishers is demonstrated according to manufacturers' instructions and relevant <i>OHS and workplace policies and procedures</i> .
2	Demonstrate correct use of fire hose reels.	2.1	Safe use of <i>hose reels</i> is demonstrated according to manufacturers' instructions and relevant OHS and workplace policies and procedures.
		2.2	Water is turned off in the approved sequence and hose reel is checked for leaks.
		2.3	Hose reel is rewound correctly after use.
3	Demonstrate correct use of fire blanket.	3.1	Safe use of fire blankets is demonstrated according to manufacturers' instructions and relevant OHS and workplace policies and procedures.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- decision-making skills to select correct first attack firefighting equipment for different types of fires
- effective customer service
- language, literacy and numeracy skills to:
 - communicate with others in a clear and concise manner
 - read and comply with work instructions and specifications

- interpersonal skills to relate to people from a range of social and cultural backgrounds
- skills to work safely when:
 - applying recommended manufacturers' techniques for operating equipment and fire fighting
 - using firefighting equipment

Required knowledge

- basic methods of locating a fire
- correct use of fire extinguishers and hose reels on different classes of fire and implications of incorrect use
- how fire can be spread by conduction, convection, radiation and direct burning
- how water pressure influences the discharge distance for hose reels
- key actions in a fire emergency, commonly known by the acronym RACE:
 - rescue
 - activate alarm
 - confine fire
 - evacuate or extinguish
- meaning of secondary damage
- reasons for cooking oil and fat fires requiring special attention
- theory of fire, including the triangle of combustion
- types and operation of fire protection equipment classified as first attack equipment

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	<p>This unit of competency could be assessed by practical demonstration, using simulated fire situations. Due to safety and cost factors, methods of extinguishing class D, E and F fires are confined to oral explanations and role play or simulations only.</p> <p>All practical demonstrations involving the use of simulated fires must adhere to the safety and environmental regulations relevant to each state or territory.</p>
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>A person who demonstrates competency in this unit must be able to provide evidence of the required skills and knowledge specified in this unit.</p> <p>In particular the person should demonstrate the ability to:</p> <ul style="list-style-type: none"> • select correct portable firefighting equipment for a particular type of fire

	<ul style="list-style-type: none"> • demonstrate the use of portable firefighting equipment • use portable firefighting equipment safely and correctly.
Context of and specific resources for assessment	<p>Assessment of essential underpinning knowledge may be conducted in an off-site context. It is to comply with relevant regulatory or Australian standards' requirements.</p> <p>Resource implications for assessment include:</p> <ul style="list-style-type: none"> • actual or simulated work environment • portable firefighting equipment.
Method of assessment	<p>Assessment methods must:</p> <ul style="list-style-type: none"> • satisfy the endorsed Assessment Guidelines of the Property Services Training Package • include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application • reinforce the integration of employability skills with workplace tasks and job roles • confirm that competency is verified and able to be transferred to other circumstances and environments.
Guidance information for assessment	<p>Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.</p> <p>Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.</p> <p>This unit could be assessed on its own or in combination with other units relevant to the job function, for example:</p> <ul style="list-style-type: none"> • CPPFES2004A Identify types of installed fire safety equipment and systems • CPPFES2006A Prepare for installation and servicing operations.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Fire types may include:	<ul style="list-style-type: none"> • combustible metals • cooking oils and fats • energised electrical equipment • flammable and combustible liquids • flammable gases • ordinary combustibles.
Classifications of fires include:	<ul style="list-style-type: none"> • classes A, B, C, D, E and F.
Fire extinguishers may include:	<ul style="list-style-type: none"> • carbon dioxide • foam • powder • vaporising liquid • water • wet chemical.
OHS and workplace policies and procedures may be located in quality assurance and/or procedures manuals relating to:	<ul style="list-style-type: none"> • appropriate techniques to use in relation to emergency management of fires • assessing work site for hazards and risks prior to preparing the work site for the work procedure • displaying signs and using barriers in the work area • OHS policies, procedures and programs, including: <ul style="list-style-type: none"> • risk and hazard recognition • emergency procedures • awareness of electrical hazards • following confined spaces procedures • first aid • personnel practices and guidelines outlining work roles, responsibilities and delegations • safety procedures, including those for working safely: <ul style="list-style-type: none"> • around electrical wiring, cables and overhead powerlines • around tools and equipment • on ladders and raised platforms • using personal protective equipment, including: <ul style="list-style-type: none"> • safety glasses or goggles • safety boots or shoes • hard hats • earmuffs or plugs.
Hose reel types may be:	<ul style="list-style-type: none"> • swing-hinged • vehicle-mounted • wall-mounted.

Unit Sector(s)

Fire protection equipment

Custom Content Section

Not applicable.

CPPSEC4008A Prepare a detailed tender

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit of competency specifies the outcomes required to prepare and process a tender submission. It requires the ability to interpret and assess tender specifications, estimate and cost resource requirements, and prepare and lodge the final tender submission within designated timelines.

This unit may form part of the licensing requirements for persons engaged in security-related tender activities in those states and territories where these are regulated activities.

Application of the Unit

Application of the unit This unit of competency has application in those work roles involving the management of tender documentation. Competency requires legal and operational knowledge applicable to relevant sectors of the security industry. The knowledge and skills described in this unit are to be applied within relevant legislative and organisational guidelines.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge section and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Assess tender requirements.	<p>1.1 <i>Tender specifications</i> and other <i>relevant information</i> are obtained and assessed to determine <i>tender requirements</i>.</p> <p>1.2 Tender <i>criteria and conditions</i> are identified and reviewed.</p> <p>1.3 <i>Viability</i> to provide <i>security requirements</i> is assessed and <i>evaluated</i> in accordance with organisational procedures.</p> <p>1.4 <i>Risk assessment</i> is conducted on anticipated outcomes in accordance with <i>organisational</i> and <i>legislative requirements</i>.</p> <p>1.5 Occupational Health and Safety (OHS) and other relevant organisational and legislative requirements are identified and allowed for within the parameters of the tender requirements.</p> <p>1.6 Appropriate <i>interpersonal techniques</i> are used to facilitate an effective exchange of information with <i>relevant persons</i>.</p>
2 Develop tender content.	<p>2.1 Project timelines, stages, activities and deliverables are defined and documented to meet tender requirements.</p> <p>2.2 <i>Resource</i> and <i>capacity</i> requirements are assessed and documented.</p> <p>2.3 Organisational <i>rate schedules</i> are applied to establish costings and estimations are detailed in the required format.</p> <p>2.4 All information is thoroughly reviewed to ensure accuracy and a detailed budget is prepared.</p> <p>2.5 <i>Factors</i> which may affect fulfilling tender requirements are identified and allowances for contingencies are made.</p>

ELEMENT	PERFORMANCE CRITERIA
3 Prepare tender submission.	2.6 Assistance in addressing tender requirements is sought as required from relevant persons.
	3.1 <i>Business technology</i> is used to prepare and present <i>tender submission</i> in the required style and format.
	3.2 Tender submission addresses tender requirements and specific criteria and conditions using clear and concise language.
	3.3 Tender submission is checked for accuracy and disseminated to relevant persons for review in accordance with organisational procedures.
	3.4 Tender submission is lodged within designated timelines.
	3.5 <i>Feedback</i> is sought on outcomes of tender submission and process is reviewed to identify areas for improvement to support future tendering procedures and processes.
	3.6 Relevant <i>documentation</i> is completed and securely maintained in accordance with organisational procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge and their level required for this unit.

Required skills

- apply reasoning and logical analysis to make decisions and solve problems
- assess and determine tender requirements
- calculate time, measurements and quantities
- coaching and mentoring to provide support to colleagues
- communicate effectively in both verbal and written modes
- comply with applicable legislative and regulatory requirements
- comply with tender criteria and conditions
- conduct a risk assessment on anticipated project outcomes
- conduct qualitative and quantitative research
- develop a detailed budget
- estimate and cost resources
- evaluate tender requirements to determine project requirements
- evaluate viability to provide security goods and services to undertake the project
- facilitate feedback
- monitor and analyse submission progress and review outcomes

REQUIRED SKILLS AND KNOWLEDGE

- negotiate, mediate and resolve conflicts
- observe protocol and probity policies
- plan and schedule activities
- prepare and process tender submissions
- prepare tender submissions using clear and concise language in required formats
- prioritise tasks and schedules
- provide written reports and documentation
- read and interpret relevant information including plans, designs and specifications
- relate to persons from different social and cultural backgrounds and of varying physical and mental abilities
- use appropriate business technology to research and compile information
- work within agreed timeframes and budgetary constraints
- write reports.

Required knowledge

- access and deployment mechanisms to ensure optimal economy and efficiency in the use of human, physical and financial resources
- client privacy and confidentiality requirements
- conflict resolution techniques
- contingency planning
- cultural protocols and systems
- formal and informal meeting processes
- national competition policy
- operational budget and resource planning processes
- operational principles of security and business technology equipment and systems
- organisational pricing schedules, policies and procedures
- organisational procedures and standards and corporate goals and objectives
- principles of effective communication
- problem-solving strategies
- quality assurance systems
- security and risk assessment techniques
- security issues and classifications
- tender layout, format and presentation methods
- tendering codes of practice.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of:

- calculating costs and estimating resource requirements for inclusion in a detailed budget
- collaborating with relevant persons to receive and incorporate feedback on tender submission
- complying with applicable legislative and regulatory requirements including codes of practice
- identifying factors through risk analysis that may affect anticipated project outcomes and making appropriate allowances for contingencies
- identifying personal limitations in assessing tender requirements and requesting appropriate assistance
- interpreting tender specifications to accurately identify resource requirements
- locating and assessing information to establish tender requirements
- planning tender activities to match timeframe and budget constraints
- using appropriate communication and interpersonal techniques to clarify and confirm tender requirements
- using appropriate technology to prepare tender documentation.

Context of and specific resources for assessment

Context of assessment includes:

- a setting in the workplace or environment that simulates the conditions of performance described in the elements, performance criteria and range statement.

Resource implications for assessment include:

- access to plain English version of relevant statutes and procedures
- access to a registered provider of assessment services
- access to a suitable venue and equipment
- assessment instruments including personal planner and assessment record book
- work schedules, organisational policies and duty statements.

Reasonable adjustments must be made to assessment processes where required for people with disabilities. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment	<p>This unit of competency could be assessed using the following methods of assessment:</p> <ul style="list-style-type: none">• observation of processes and procedures• questioning of underpinning knowledge and skills.
Guidance information for assessment	<p>Assessment processes and techniques must be culturally appropriate and suitable to the language, literacy and numeracy capacity of the candidate and the competency being assessed. In all cases where practical assessment is used, it should be combined with targeted questioning to assess the underpinning knowledge.</p> <p>Oral questioning or written assessment may be used to assess underpinning knowledge. In assessment situations where the candidate is offered a choice between oral questioning and written assessment, questions are to be identical.</p> <p>Supplementary evidence may be obtained from relevant authenticated correspondence from existing supervisors, team leaders or specialist training staff.</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Tender may be:

- in-house
- negotiated
- open
- selective.

Tender specifications may detail:

- client requirements
- identification of deliverables
- insurance requirements
- legal requirements
- performance standards
- project management
- project scope
- proposed activities to be undertaken
- quality assurance

- resource requirements eg human and physical
 - specific requirements
 - stakeholder involvement
 - time and cost parameters.
- Relevant information may include:***
- client details
 - contract documentation
 - details of security goods and services to be provided
 - organisational cost schedules
 - tender details.
- Tender requirements may include:***
- compliance with tender criteria and conditions
 - format and layout
 - legal compliance
 - response to all tender clauses
 - submission date.
- Tender criteria and conditions may relate to:***
- eligibility for submission of tender which may include:
 - interview, meeting or presentation of tender
 - selection criteria and weightings
 - special requirements
 - submission date
 - tender document format.
- Viability may include consideration of:***
- available resources, equipment and supplies
 - client requirements
 - competition
 - compliance with regulations
 - cost of tender preparation and processing
 - financial considerations
 - geographic constraints
 - likely profit
 - other projects
 - prospect of winning the tender
 - skills required for the provision of services
 - time constraints.
- Security requirements may relate to the provision of:***
- security equipment and systems
 - access control systems
 - audible and visual warning devices
 - cameras and monitors
 - commercial and residential alarm systems
 - detection devices
 - electric and mechanical fire safety and fire locking systems
 - electronic locks and locking systems

- electronic readers
- electronic screen equipment
- intercoms and control panels
- security doors and door controls
- specialised access control systems eg biometrics
- security services
 - close personal protection
 - crowd control
 - escorting
 - guarding
 - patrolling
 - screening.

Evaluation may relate to:

- capability
- capacity
- previous projects
- risk
- security
- service
- verification of quality accreditation.

Risk relates to:

- the chance of something happening that will have an impact on objectives.

Risk assessment may include:

- identifying risks in isolation or as part of a broader risk management strategy and addressing risks such as
 - damage to property or equipment
 - environmental landscape
 - equipment or system failures
 - financial or economic loss or failure
 - inability to deliver or meet the timelines if selected
 - OHS
 - professional incompetency.

Organisational requirements may relate to:

- access and equity policies, principles and practices
- business and performance plans
- client service standards
- code of conduct, code of ethics
- communication and reporting procedures
- complaint and dispute resolution procedures
- emergency and evacuation procedures
- employer and employee rights and responsibilities
- insurance cover
- OHS policies, procedures and programs

- own role, responsibility and authority
- personal and professional development
- privacy and confidentiality of information
- quality assurance and continuous improvement processes and standards
- resource parameters and procedures
- risk management
- roles, functions and responsibilities of security personnel
- storage and disposal of information.
- Australian standards and quality assurance requirements
- general 'duty of care' responsibilities
- licensing or certification requirements
- privacy and confidentiality
- professional indemnity
- relevant commonwealth, state and territory legislation, codes and national standards for:
 - anti-discrimination
 - cultural and ethnic diversity
 - environmental issues
 - equal employment opportunity
 - industrial relations
 - OHS
- relevant industry codes of practice.

Legislative requirements may relate to:

Interpersonal techniques may involve:

- active listening
- being non-judgemental
- being respectful and non-discriminatory
- constructive feedback
- control of tone of voice and body language
- culturally aware and sensitive use of language and concepts
- demonstrating flexibility and willingness to negotiate
- effective verbal and non-verbal communication
- maintaining professionalism
- providing sufficient time for questions and responses
- reflection and summarising
- two-way interaction
- use of plain English
- use of positive, confident and cooperative language.

Relevant persons may include:

- clients
- colleagues
- manager

- security goods and services suppliers
 - security personnel
 - tenderer.
- Resources may include:***
- equipment
 - financial
 - human
 - physical
 - time.
- Capacity may relate to:***
- facilities
 - other priorities
 - personnel expertise
 - resource availability
 - time.
- Organisational rate schedules may relate to:***
- award and enterprise agreements
 - equipment costs
 - installation costs
 - labour rates
 - materials costs
 - monitoring costs
 - service costs
 - unit costs.
- Factors may relate to:***
- access to assistance and resources
 - budget constraints
 - competing work demands
 - compliance
 - contractual requirements
 - disputes
 - insurance
 - technology and equipment breakdowns
 - time penalties.
- Business technology may include:***
- computers:
 - database software applications
 - email, Internet, intranet
 - graphical presentation software
 - printers
 - project management software
 - word processing software.
- Tender submission may detail:***
- client brief
 - company information
 - costs
 - evaluation criteria

- implementation plan
- recommended security goods or services
- security and risk assessment
- service and maintenance information
- statutory declaration
- terms of trade
- timelines
- warranty and liability terms and conditions.
- participation in meetings and briefings
- recorded observations on progress of activities
- regular communication with relevant persons.
- client details and records
- contract documentation
- cost schedules
- details of security goods and services
- tender documentation.

Feedback may be gained through:

Relevant documentation may include:

Unit Sector(s)

Unit sector Security

Competency field

Competency field Security and risk management

CPPWMT5043A Develop and implement an environmental management strategy

Modification History

Revised unit

Unit updated and equivalent to PRMWM43A Develop an environmental management strategy

Unit Descriptor

This unit of competency specifies the outcomes required to develop and implement an environmental management strategy. It requires the ability to analyse practices and develop environmental management strategies by working effectively with stakeholders.

Application of the Unit

This unit of competency supports individuals with supervisory responsibilities for developing waste management strategies. It includes contributing to the development of strategies, systems and plans, as well as recognising the need for expert advice.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of

performance is to be consistent with the evidence guide.

Elements and Performance Criteria

1	Define scope of environmental management strategy.	1.1	Needs and expectations for development of <i>environmental management strategy</i> are identified.
		1.2	<i>Constraints</i> under which environmental strategy can be developed are identified.
		1.3	Clear and concise statement of environmental objectives is prepared and <i>feasibility of environmental management options</i> is evaluated.
2	Determine environmental management strategy development process.	2.1	<i>Process models</i> applicable to scope of environmental management strategy are identified.
		2.2	Process models are assessed and a suitable model for achieving the strategy's objectives is selected.
		2.3	Principal <i>stakeholders</i> are identified to maximise their participation in development process.
		2.4	Stakeholders are consulted regarding acceptance of proposed strategy development process.
3	Identify resources required for environmental management strategy.	3.1	Resource requirements of the strategy are determined in an accurate and comprehensive manner.
		3.2	Financial budget required for management strategy is prepared.
		3.3	<i>Human resource</i> and skill requirements for strategy are identified.
		3.4	Facility and equipment needs for strategy are identified to ensure all requirements can be met on time.
4	Identify and prioritise	4.1	Existing <i>data</i> is collated in a comprehensive manner relevant to the scope and strategy.

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| environmental assets, problems and opportunities. | 4.2 | Existing data is evaluated to identify need for further data collection. |
| | 4.3 | Additional data is obtained to ensure a comprehensive database for effective analysis. |
| | 4.4 | Available data is assessed against scientifically established criteria and community expectations within <i>applicable legislation and codes</i> . |
| | 4.5 | Common problems and opportunities are grouped to formulate environmental issues that can be actioned by stakeholders. |
| | 4.6 | <i>Criteria to prioritise</i> environmental issues are established. |
| 5 Prepare environmental management strategy. | 5.1 | Practical actions that enable a resolution of environmental issues in line with strategy objectives are determined. |
| | 5.2 | Clear and concise draft documentation is prepared for the strategy to obtain feedback from stakeholders. |
| | 5.3 | Feedback is evaluated and a response is formed. |
| | 5.4 | Local approval of the environmental management strategy is obtained. |
| 6 Prepare implementation plan for environmental management strategy. | 6.1 | Actions are prioritised to provide the most effective resolution of issues within available resources. |
| | 6.2 | Resources are allocated to match action priorities. |
| | 6.3 | Processes are monitored and modified as required to ensure the strategy is achieving objectives. |
| | 6.4 | Responsible parties with the capacity to carry out strategy actions are identified. |
| | 6.5 | Achievable timelines, schedules and targets that enable strategy objectives to be met within required timeframes are established. |
| | 6.6 | <i>Supervisory processes</i> and checks and measures are implemented to ensure work is completed within <i>time</i> |

available.

7	Monitor and review effectiveness of environmental management strategy.	7.1	Regular data to provide accurate measures of performance are collected and analysed.
		7.2	Outcomes of strategy objectives are compared to assess respective effectiveness.
		7.3	Changes are made to strategy as required in a timely manner to ensure outcomes are achieved.
		7.4	Information obtained during monitoring and review is used to develop new strategies based on accumulated knowledge and experience.

Required Skills and Knowledge

- This section describes the skills and knowledge required for this unit.

Required skills

- analytical skills to:
 - determine appropriate waste management service
 - review operations
 - conduct feasibility tests
- interpersonal skills to:
 - manage consultation processes
 - present strategy
- management skills to:
 - apply change management techniques
 - conduct budgeting
 - organise work practices safely and efficiently
 - conduct strategic problem solving
 - plan work practices
 - identify and minimise hazards and risks
 - organise work methodically
 - monitor performance
 - apply quality assurance practices
 - use information technology to complete tasks
- oral communication skills to:

- ask questions
- listen actively
- consult
- give instructions
- provide strategic information
- reading skills to interpret:
 - plans
 - complex documentation
- written communication skills to:
 - write reports
 - prepare complex strategic documentation

Required knowledge

- environmental issues relating to:
 - life cycle of products: re-new, re-use and recycle
 - environmental regulations
 - renewable energy
- features required for an environmental management strategy, including:
 - site contract requirements
 - reclamation
 - training outline
 - waste minimisation
 - waste prevention
 - work procedures
 - environmental education
 - past and future reviews and audits relating to environmental management
 - recycling requirements
 - internal and external audits
 - monitoring personnel performance following training
 - quality control checks relating to environmental management
 - review of effectiveness of new procedures and processes
 - targets, such as:
 - carbon emissions reduction
 - cleaner production
 - lean management
 - recycling rates
 - waste minimisation
- identification and strategic knowledge of:
 - waste types, streams and characteristics
 - waste non-conformances

- unanticipated waste
- waste non-conformance procedures
- waste containment
- waste disposal and recovery routes
- occupational health and safety (OHS) requirements relating to:
 - dangerous goods and hazardous substances
 - OHS hierarchy of control
- resource recovery options relating to:
 - valuable resources within materials
 - potential resources to be recovered
- waste assessment to identify:
 - resource needs
 - hazards and risks
- waste audit, including:
 - analysing waste practices
 - analysing previous audit plans and audit processes
 - outlining possible benefits and outcomes from conducting a waste assessment
 - types of client waste management surveys and their uses
 - sampling techniques
- waste management provision, including:
 - organisational requirements and structure, including workplace communication channels and procedures
 - legislation, regulations and codes of practice applicable to specific waste management functions
 - waste management options
 - nature and significance of waste minimisation hierarchy life cycle assessment
 - organisational pricing schedules
 - duty of care

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	This unit of competency could be assessed by observation of practical demonstration of the development and implementation of an environmental management strategy.
Critical aspects for	A person who demonstrates competency in this unit must be able to

<p>assessment and evidence required to demonstrate competency in this unit</p>	<p>provide evidence of the required skills and knowledge specified in this unit.</p> <p>In particular the person should demonstrate the ability to:</p> <ul style="list-style-type: none"> • identify environmental management objectives • consult stakeholders consulted in development strategy • prioritise environmental issues by level of importance and impact • amalgamate issues in order to develop environmental management strategy.
<p>Context of and specific resources for assessment</p>	<p>Assessment of essential underpinning knowledge may be conducted in an off-site context. It is to comply with relevant regulatory or Australian standards' requirements.</p> <p>Resource implications for assessment include:</p> <ul style="list-style-type: none"> • work plans and approved specifications • forms and procedures manuals.
<p>Method of assessment</p>	<p>The process of developing an environmental management strategy must comply with the objectives of the client as well as with industry expectations in the particular client environment. If the environment is narrowly defined or is not representative of industry needs, it may be necessary to refer to portfolio case studies to assess competency in the development of environmental management strategy.</p> <p>Assessment methods must:</p> <ul style="list-style-type: none"> • satisfy the endorsed Assessment Guidelines of the Property Services Training Package • include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application • reinforce the integration of employability skills with workplace tasks and job roles • confirm that competency is verified and able to be transferred to other circumstances and environments.
<p>Guidance information for assessment</p>	<p>Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.</p> <p>Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.</p> <p>This unit could be assessed on its own or in combination with other</p>

	<p>units of competency relevant to the job function, for example:</p> <ul style="list-style-type: none"> • CPPCMN4001B Develop workplace policies and procedures for sustainability • CPPWMT5004A Develop waste management strategies.
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Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Environmental management strategy</i> may include:	<ul style="list-style-type: none"> • air and water pollution • biodiversity protection and protection of natural resources • carbon emission • ecosystem management • wildlife and endangered species.
<i>Constraints</i> may include:	<ul style="list-style-type: none"> • budgets • knowledge • resources • time.
<i>Feasibility of environmental management options</i> must include:	<ul style="list-style-type: none"> • commitment to environmental management strategies • compliance with legislation • cost-benefit analysis • costs • lead time • process constraints • resource requirements, including equipment and personnel • resources available.
<i>Process models</i> may include:	<ul style="list-style-type: none"> • implementation strategies, including: <ul style="list-style-type: none"> • material safety data sheets (MSDS) • measurement and recording • OHS procedures • personal protective equipment (PPE) • legislation and codes • site contract requirements • work procedures • objectives pertaining to: <ul style="list-style-type: none"> • changes to processes and procedures

	<ul style="list-style-type: none"> • environmental issues • education and training • past and future reviews and audits • recycling requirements • reduction of waste • review strategies, including: <ul style="list-style-type: none"> • internal and external audits • monitoring statistics • monitoring personnel performance following training • undertaking quality control checks • reviewing effectiveness of new procedures and processes • formalising review strategies via re-planning • sampling • counting waste • targets, such as: <ul style="list-style-type: none"> • carbon emissions reduction • lean management • recycling rates • waste minimisation.
<p><i>Stakeholders</i> may include:</p>	<ul style="list-style-type: none"> • business • community • council • funding bodies • government • industry • interest groups • land management agencies • local authorities • statutory authorities.
<p><i>Human resource</i> may include:</p>	<ul style="list-style-type: none"> • community experts • consultants • government agencies • internal staff • project officers • volunteers.
<p><i>Data</i> may include:</p>	<ul style="list-style-type: none"> • existing reports or programs • questionnaires • references • stakeholder input • surveys.

<p><i>Applicable legislation and codes</i> may include:</p>	<ul style="list-style-type: none"> • codes, including: <ul style="list-style-type: none"> • Australian Code for the Transport of Dangerous Goods by Road and Rail • industry • commonwealth, state and territory legislation, including: <ul style="list-style-type: none"> • anti-discrimination • environmental protection • equal employment opportunity • freedom of information • industrial • OHS • trade practices • road laws.
<p><i>Criteria to prioritise</i> may include:</p>	<ul style="list-style-type: none"> • benefit • budget constraints • business objectives • community preferences • environmental issues: <ul style="list-style-type: none"> • impact • legislative provisions • resources • timeframes.
<p><i>Supervisory processes</i> may include:</p>	<ul style="list-style-type: none"> • delegating • implementing • monitoring • overseeing • planning • reviewing • targeting practices to meet deadlines.
<p><i>Time available</i> may include considering:</p>	<ul style="list-style-type: none"> • client instructions • contingencies • past experiences • skills and experience of operatives • location of project • methods to be employed • resources and equipment to be used.

Unit Sector(s)

Waste management

Custom Content Section

Not applicable.

CPPWMT5045A Develop site safety plans

Modification History

Revised unit

Unit updated and equivalent to PRMWM45B Develop site safety plan

Unit Descriptor

This unit of competency specifies the outcomes required to develop an on-site safety plan for a waste management environment. It requires the ability to plan activity for safe work practices.

Application of the Unit

This unit of competency supports individuals responsible for developing on-site safety plans. It includes contributing to the development of operational procedures, in addition to safety principles.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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|---|---|-----|---|
| 1 | Review site safety requirements. | 1.1 | <i>Details of site and site requirements</i> are obtained and reviewed to determine specific safety requirements. |
| | | 1.2 | <i>Organisational requirements</i> , occupational health and safety (OHS) regulations and <i>legislation and codes</i> are identified. |
| | | 1.3 | <i>Site safety requirements</i> are identified according to organisational requirements. |
| 2 | Determine site safety requirements. | 2.1 | Safety information necessary to ensure safety of personnel and general public is included in the on-site safety plan. |
| | | 2.2 | <i>Site areas</i> are identified and classified in safety plan. |
| | | 2.3 | Exact locations of <i>first aid and emergency facilities</i> are identified in on-site safety plan. |
| | | 2.4 | <i>Wastes on site</i> are clearly identified in on-site safety plan by location and type. |
| | | 2.5 | <i>Emergency and personal protective equipment (PPE)</i> requirements and <i>potential hazards and risks</i> are identified for specific site areas in on-site safety plan. |
| | | 2.6 | <i>Emergency response action or procedures</i> are identified according to on-site safety plan. |
| | | 2.7 | On-site safety plan is reviewed following feedback from stakeholders. |
| 3 | Communicate on-site safety plan to personnel. | 3.1 | On-site safety plan is communicated promptly and clearly to relevant personnel according to organisational requirements, OHS regulations and legislation and codes. |
| | | 3.2 | Personnel's understanding of all aspects of on-site safety plan is confirmed through questioning and observation. |
| | | 3.3 | Feedback from personnel is obtained and integrated into on-site safety plan. |

- 3.4 On-site safety plan is kept in an accessible place, according to organisational requirements, OHS regulations and legislation and codes.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- analytical skills to:
 - determine site safety options
 - review operations
- basic illustration skills for drawing simple site maps
- interpersonal skills to:
 - manage consultation processes
 - present safety plan
- management skills to:
 - apply change management techniques
 - conduct strategic problem solving
 - plan work practices
 - identify and minimise hazards and risks
 - organise work methodically
 - apply quality assurance practices
 - use information technology to complete tasks
 - use emergency and personal protective equipment
- reading skills to interpret:
 - work or material requirements
 - materials safety data sheets (MSDS)
- written communication skills to:
 - write reports
 - prepare complex strategic documentation
- critical thinking skills to develop on-site safety plan, identifying:
 - resource needs
 - hazards and risks
- oral communication skills to:
 - ask and answer questions
 - explain on-site safety plan to personnel

- give instructions
- seek feedback
- listen actively

Required knowledge

- environmental issues relating to:
 - life cycle of products: re-new, re-use and recycle
 - environmental regulations
- features required for on-site safety plan pertaining to:
 - site contract requirements
 - waste disposal methods
 - waste minimisation
 - waste prevention
 - waste segregation
 - work procedures
 - environmental issues
 - education and training outline
 - recycling and recovery requirements
 - monitoring personnel performance following safety training
 - quality control checks
 - review of effectiveness of new procedures and processes
- identification of safety issues pertaining to:
 - waste types, streams and characteristics and level of associated danger
 - waste non-conformances
 - unanticipated waste
 - waste non-conformance procedures
 - waste contaminants
 - hazardous waste
 - waste containment
 - waste disposal and recovery routes
- OHS requirements relating to:
 - dangerous goods and hazardous substances
 - OHS hierarchy of control
- waste audit, including:
 - analysing waste safety practices
 - analysing previous audit plans and audit processes pertaining to safety
- waste management provision, including:
 - organisational requirements in relation to safety
 - organisational structure and reporting requirements
 - legislation, regulations and codes of practice applicable to specific waste management

functions

- waste management safety options

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	This unit of competency could be assessed by demonstration of site safety plans developed.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>A person who demonstrates competency in this unit must be able to provide evidence of the required skills and knowledge specified in this unit.</p> <p>In particular the person should demonstrate the ability to:</p> <ul style="list-style-type: none"> • identify site safety requirements • specify all necessary PPE required to undertake work safely in each site area • gather necessary information to develop on-site safety plan following consultation with stakeholders • apply OHS requirements and duty of care to provide safe environment for personnel and general public.
Context of and specific resources for assessment	<p>Assessment of essential underpinning knowledge may be conducted in an off-site context. It is to comply with relevant regulatory or Australian standards' requirements.</p> <p>Resource implications for assessment include:</p> <ul style="list-style-type: none"> • work plans and approved specifications • forms and procedures manuals.
Method of assessment	<p>An on-site safety plan must be developed in line with industry expectations in the particular client environment. If the environment is narrowly defined or is not representative of industry needs, it may be necessary to refer to portfolio case studies to assess competency in the development of the plan.</p> <p>Assessment methods must:</p> <ul style="list-style-type: none"> • satisfy the endorsed Assessment Guidelines of the Property Services Training Package • include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application

	<ul style="list-style-type: none"> reinforce the integration of employability skills with workplace tasks and job roles confirm that competency is verified and able to be transferred to other circumstances and environments.
Guidance information for assessment	<p>Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.</p> <p>Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.</p> <p>This unit could be assessed on its own or in combination with other units of competency relevant to the job function, for example:</p> <ul style="list-style-type: none"> CPPCMN3001B Participate in environmentally sustainable work practices CPPCMN4007A Manage workplace safety arrangements.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Details of site and site requirements</i> may include:	<ul style="list-style-type: none"> areas allowing access to general public organisational and site OHS requirements number of personnel on site potential hazards and risks, including level of risk waste incoming waste present at site.
<i>Organisational requirements</i> may include information found in:	<ul style="list-style-type: none"> briefing papers job sheets letters memos operations manuals quality assurance documents tender and contract documents verbal or written instructions work procedures.
<i>Legislation and codes</i>	<ul style="list-style-type: none"> codes, including:

<p>may include:</p>	<ul style="list-style-type: none"> • Australian Code for the Transport of Dangerous Goods by Road and Rail • industry • commonwealth, state and territory legislation, including: <ul style="list-style-type: none"> • anti-discrimination • environmental protection • equal employment opportunity • freedom of information • industrial • OHS • trade practices • road laws.
<p>Site safety requirements must include:</p>	<ul style="list-style-type: none"> • all necessary requirements to ensure the safety of: <ul style="list-style-type: none"> • environment • equipment • general public • personnel • structures.
<p>Site safety requirements may also include:</p>	<ul style="list-style-type: none"> • awareness of potential hazards and risks • communication requirements • confined space awareness • emergency procedure guides • emergency response equipment • emergency shut-down and lock-out procedures • evacuation area • first aid • induction • PPE requirements • site security • training • warning signs and barriers.
<p>Site areas may include:</p>	<ul style="list-style-type: none"> • evacuation areas • first aid bays • general public access areas • restricted areas.
<p>First aid and emergency facilities may include:</p>	<ul style="list-style-type: none"> • breathing apparatus • eye baths • fire extinguishers • first aid kits.
<p>Wastes on site may</p>	<ul style="list-style-type: none"> • solid (non-hazardous), e.g. construction and demolition

<p>include:</p>	<ul style="list-style-type: none"> • liquid (non-hazardous), e.g. chemical and aqueous • hazardous – regulated, prescribed, quarantined, medical and clinical • recoverable resources, e.g. recyclable and green waste.
<p><i>Emergency and personal protective equipment</i> must include:</p>	<ul style="list-style-type: none"> • communications equipment • eye protection, such as goggles and protective glasses • eyewash kit • fire extinguishers • first aid kit • footwear • gloves • overalls and protective clothing.
<p><i>Emergency and personal protective equipment</i> could also include:</p>	<ul style="list-style-type: none"> • breathing apparatus • emergency procedure guides • face shields or masks • hard hats • hearing protection • MSDS • spill kit.
<p><i>Personal protective equipment</i> must be:</p>	<ul style="list-style-type: none"> • cleaned and fitted according to organisational requirements, manufacturer specifications and OHS requirements • worn when required according to organisational requirements • stored according to organisational requirements.
<p><i>Potential hazards and risks</i> are those identified by the organisation that may lead to:</p>	<ul style="list-style-type: none"> • damage to plant, vehicle or property • harm to the environment • illness or injury to employees, contractors or the public • injuries resulting from manual handling and repetitive work.
<p><i>Potential hazards and risks</i> may include:</p>	<ul style="list-style-type: none"> • broken glass • broken metal • compaction equipment • contamination • dust • fire • gases and fumes • hazardous waste (e.g. sharps) • narrow driveways • other vehicles and equipment • overhanging signs • projectiles • spark-producing equipment • unguarded conveyor belts

	<ul style="list-style-type: none">• weather.
<i>Emergency response action or procedures</i> may include:	<ul style="list-style-type: none">• cleaning up• containing emergency• isolating or shutting down equipment or plant• evacuation• first aid• making site safe• notifying authorities• using PPE.

Unit Sector(s)

Waste management

Custom Content Section

Not applicable.

CUAACD302 Produce computer-aided drawings

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package version 2.0.

Application

This unit describes the skills and knowledge required to use a range of computer-aided design and drafting (CADD) program functions to produce drawings. The focus of this unit is on the technical skills required to operate CADD, not on design skills.

It applies to individuals who use computer-aided drawing skills in various contexts.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Visual communication – art, craft and design

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for computer-aided drawing work	1.1 Clarify drawing requirements in concept or project information 1.2 Identify hardware, software, tools and equipment required for computer-aided design and drafting projects 1.3 Set up hardware and software according to operating instructions and organisational procedures 1.4 Identify and retrieve digitised information relevant to projects
2. Gather object parameters and/or	2.1 Establish and record critical dimensions and data for required designs

ELEMENT	PERFORMANCE CRITERIA
measurements	2.2 Identify requirements in relation to accuracy, tolerances and other key information
3. Prepare plots or drawings	3.1 Access and use <i>CADD functions and features</i> according to operating instructions 3.2 Access and use peripheral equipment required for projects 3.3 Prepare and review preliminary drawings in consultation with relevant people
4. Finalise drawings	4.1 Check designs against project objectives and specifications according to organisational procedures 4.2 Identify and make required adjustments to designs based on review and consultation with relevant people 4.3 Store data files according to operating instructions and organisational procedures 4.4 Submit final drawings within agreed time parameters

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 1.3, 1.4, 2.2, 3.1, 4.1	<ul style="list-style-type: none"> Interprets and evaluates detailed information, instructions and technical specifications in a range of formats to prepare for and produce computer aided drawings Reviews accuracy of drawings against specifications and project information
Writing	2.1, 2.2	<ul style="list-style-type: none"> Records key design information using correct conventions and terminology
Oral Communication	1.1, 3.3	<ul style="list-style-type: none"> Uses questioning and careful listening to elicit information and opinions from others
Numeracy	2.1, 2.2, 3.1	<ul style="list-style-type: none"> Identifies and records measurements and other numerically expressed specifications required for drawings Operates numerical functions of computer aided drawing equipment to produce drawings to accurate

		scale and measurements
Navigate the world of work	1.3, 4.1, 4.3	<ul style="list-style-type: none"> Takes responsibility for following necessary organisational procedures when planning and undertaking work
Interact with others	3.3	<ul style="list-style-type: none"> Participates in review of work progress with relevant people
Get the work done	1.1-1.4, 2.1, 2.2, 3.1-3.3, 4.1-4.4	<ul style="list-style-type: none"> Plans and organises required equipment, software and data in logical steps according to workplace and project requirements Prepares preliminary drawings for evaluation by others and makes recommended refinements Uses features of digital systems and tools to produce, edit, store and retrieve drawings Manages time to complete final drawings within established timeframes

Range of Conditions

This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

CADD functions and features must include:	<ul style="list-style-type: none"> drawing tools to support methods for drawing: <ul style="list-style-type: none"> lines arcs polylines texts dimensions edit functions plotting and printing view displays working with layers.
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

Code and title current version	Code and title previous version	Comments	Equivalence status
CUAACD302 Produce computer-aided drawings	CUVACD302A Produce computer-aided drawings	Updated to meet Standards for Training Packages and clarify intent.	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>

Assessment Requirements for CUAACD302 Produce computer-aided drawings

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package version 2.0.

Performance Evidence

Evidence of the ability to:

- select computer-aided design and drafting (CADD) hardware and software to suit project requirements
- follow operating instructions and organisational procedures
- use features and functions of a CADD program to produce drawings that meet project objectives
- use feedback from others to refine and produce final drawings within specified timelines.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the relevant hardware, software, tools and equipment used for CADD
- describe the ways in which CADD is used within the specific workplace situation
- describe typical features and functions of CADD programs, including drawing tools, view displays, edit functions, working with layers, plotting and printing.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in creative arts industry environments. The assessment environment must include access to:

- CADD equipment and software
- project or concept information
- operating instructions and organisational procedures
- relevant people.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational educational and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>

CUAACD303 Produce technical drawings

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package version 2.0.

Application

This unit describes the skills and knowledge required to apply a range of techniques to produce technical drawings that meet required standards and conventions.

It applies to individuals who use technical drawings in various contexts.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Visual communication – art, craft and design

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for technical drawing work	1.1 Clarify drawing requirements by referring to project documentation and consulting with appropriate people 1.2 Identify factors that may impact on technical drawing work 1.3 Select techniques to fit the purpose of the drawings 1.4 Prepare equipment and materials according to workplace procedures and safety requirements
2. Create technical drawings	2.1 Apply appropriate conventions and standards to technical drawings 2.2 Prepare and review preliminary drawings in consultation with

ELEMENT	PERFORMANCE CRITERIA
	relevant people and confirm required amendments 2.3 Produce technical drawings that are consistent with concept and purpose of drawings 2.4 Finalise and submit technical drawings within agreed timeframes

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2	<ul style="list-style-type: none"> Interprets project documentation and other relevant information to identify drawing requirements and constraints
Oral Communication	1.1, 2.2	<ul style="list-style-type: none"> Uses questioning and careful listening to elicit information and opinions from others
Numeracy	2.1, 2.3	<ul style="list-style-type: none"> Interprets numerical and spatial concepts related to drawing standards and conventions
Navigate the world of work	1.2, 1.4	<ul style="list-style-type: none"> Takes responsibility for following workplace procedures and safety requirements and recognises potential legal, ethical and contractual constraints when planning and undertaking work
Interact with others	1.1, 2.2	<ul style="list-style-type: none"> Participates in review of work progress with relevant people
Get the work done	1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4	<ul style="list-style-type: none"> Plans tasks in a logical sequence and manages time to complete final drawings within established timeframes Selects techniques appropriate to the drawing purpose and concept Ensures drawings comply with correct standards and conventions Prepares preliminary drawings for evaluation by others and makes recommended adjustments

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
CUAACD303 Produce technical drawings	CUVACD303A Produce technical drawings	Updated to meet Standards for Training Packages and clarify intent.	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>

Assessment Requirements for CUAACD303 Produce technical drawings

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package version 2.0.

Performance Evidence

Evidence of the ability to:

- produce technical drawings which:
 - show a command of selected techniques
 - adhere to technical drawing standards and conventions
 - satisfy specified drawing purposes and concepts
- follow workplace procedures and safety requirements
- use feedback from others to refine and produce final drawings
- meet deadlines.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe physical properties and capabilities of the range of materials, tools and equipment used for technical drawing work
- explain technical drawing techniques and their application to a range of contexts and subject matter
- explain current standards and conventions for technical drawing
- describe work health and safety requirements for preparation of technical drawing materials and equipment.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in creative arts industry environments. The assessment environment must include access to:

- equipment and materials required to produce technical drawings
- documented technical drawing requirements
- workplace documentation
- relevant people.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational educational and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>

CUAATS504 Work with Aboriginal and Torres Strait Islander cultural material

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package version 2.0.

Application

This unit describes the skills and knowledge required to work with Aboriginal and Torres Strait Islander cultural material in a culturally appropriate manner. It involves the complex and interrelated elements of Aboriginal and Torres Strait Islander cultures, which are the cultural and intellectual properties of specific communities; elements that may only be interpreted by appropriate persons, for example those recognised by the local Aboriginal or Torres Strait Islander community as an Elder or custodian of local cultural knowledge.

It applies to individuals who source, handle, interpret and exhibit Aboriginal or Torres Strait Islander cultural material in accordance with specific cultural and consultative requirements. The cultural knowledge necessary to achieve competency in this unit may only be accessible to Aboriginal or Torres Strait Islander people. This unit also reflects that there is no single Aboriginal or Torres Strait Islander culture.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Cultural services - Aboriginal and Torres Strait Islander cultural heritage

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Source Aboriginal or Torres Strait Islander	1.1 Identify and locate cultural material that may be appropriate for

ELEMENT	PERFORMANCE CRITERIA
cultural material	exhibition or display 1.2 Confirm traditional ownership of material in consultation with appropriate communities 1.3 Consult with traditional custodians to determine suitable keeping place for materials not authorised for general exhibition 1.4 Negotiate permission and advice for the use of cultural material according to cultural protocols 1.5 Complete documentation including records and agreements according to cultural protocols 1.6 Research issues and protocols in relation to the return of cultural material to local Aboriginal or Torres Strait Islander communities
2. Handle Aboriginal or Torres Strait Islander cultural material	2.1 Describe, move, store and maintain cultural material according to cultural requirements 2.2 Note aspects of objects that need repair or attention and take action within scope of own job role or refer to relevant personnel as required 2.3 Communicate specific cultural requirements to colleagues
3. Prepare Aboriginal or Torres Strait Islander cultural material for exhibition	3.1 Consult with custodians to agree on culturally appropriate approaches to promote, exhibit and display material, and limitations to mode of exhibit 3.2 Develop culturally appropriate interpretive approaches 3.3 Develop exhibition support materials that take account of cultural protocols in consultation with custodians 3.4 Communicate requirements for display or exhibition of cultural material to colleagues
4. Display and return Aboriginal or Torres Strait Islander cultural material	4.1 Display material according to agreed cultural protocols and consultation outcomes 4.2 Prepare material for return in accordance with cultural requirements 4.3 Return cultural material to local Aboriginal or Torres Strait Islander communities in accordance with established cultural issues and protocols

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.6	<ul style="list-style-type: none"> Gathers, interprets and analyses information from a range of sources and identifies key information that assists in determining job and cultural requirements
Writing	1.5, 2.2, 3.3	<ul style="list-style-type: none"> Prepares specific information that conveys an understanding of outcomes and alternatives and uses accurate, specific and appropriate terminology appropriate to present to relevant personnel Completes relevant supporting documentation using clear and technically specific language terminology that reflect appropriate cultural protocols
Oral Communication	1.2, 1.3, 1.4, 2.3, 3.1, 3.3, 3.4	<ul style="list-style-type: none"> Uses culturally sensitive language to convey ideas and listens carefully to the needs of community members and custodians Uses a range of persuasive responses appropriate to audience and environment and makes comparisons that show an understanding of requirements Uses appropriate tone, pace and listening and questioning techniques to elicit others' views and confirm understanding
Navigate the world of work	1.1, 1.6, 2.1, 2.2, 3.1	<ul style="list-style-type: none"> Takes responsibility for following explicit and implicit policies, procedures and protocols relevant to own role and the cultural requirements associated with work
Interact with others	1.2, 1.3, 1.4, 2.3, 3.1, 3.3, 3.4	<ul style="list-style-type: none"> Shows respect for the values, beliefs and cultural expectations of others when communicating with colleagues and external stakeholders Collaborates with others to achieve joint outcomes playing an active role in facilitating agreement
Get the work done	1.1, 1.6, 2.1, 2.2, 3.1, 3.3, 4.1, 4.2, 4.3	<ul style="list-style-type: none"> Takes responsibility for planning, organising and implementing tasks and systems to manage and display culturally sensitive information and materials Systematically gathers and analyses all relevant information and evaluates options in order to make informed decisions Uses problem solving techniques to identify and analyse issues

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
CUAATS504 Work with Aboriginal and Torres Strait Islander cultural material	CULATS501A Work with Aboriginal and Torres Strait Islander cultural material	Updated to meet Standards for Training Packages and clarify intent.	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>

Assessment Requirements for CUAATS504 Work with Aboriginal and Torres Strait Islander cultural material

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package version 2.0.

Performance Evidence

Evidence of the ability to:

- source Aboriginal or Torres Strait Islander cultural material for display or exhibition
- consult in a culturally sensitive and effective manner with Aboriginal or Torres Strait Islander community members and custodians about the display of cultural material
- develop agreements for the use of cultural material and record them where required
- undertake activities preparing for the display of Aboriginal or Torres Strait Islander cultural material in a logical and efficient manner, demonstrating knowledge of cultural protocols and practices
- move, store, display, maintain and return cultural material in a manner consistent with established cultural protocols.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain nature and scope of Aboriginal or Torres Strait Islander cultural material appropriate for exhibition or display
- identify appropriate keeping places for cultural material not suitable/forbidden for exhibition or display
- explain issues and protocols relating to the use and return of cultural material to Aboriginal or Torres Strait Islander communities
- identify copyright, moral rights and intellectual property issues with particular reference to Aboriginal or Torres Strait Islander cultural material
- identify sources of support for developing Aboriginal and Torres Strait Islander collections

- describe current conventions of collection management, including appropriate consultations and respect for traditional custodianship when working with Aboriginal or Torres Strait Islander cultural material, including non-western concepts of collecting
- explain cultural protocols and appropriate consultations for identifying, moving, storing, maintaining and displaying cultural material in the relevant community context
- explain current industry policy on acquiring and managing Aboriginal and Torres Strait Islander cultural material.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in Aboriginal and Torres Strait Islander cultural heritage environments. The assessment environment must include access to:

- Aboriginal or Torres Strait Islander cultural material or information on material when access is not available
- information about cultural protocols.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational educational and training legislation, frameworks and/or standards.

Assessment must ensure involvement in the assessment process of persons approved of by Elders, appropriate persons or custodians of the relevant Aboriginal or Torres Strait Islander community.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>

CUACNM301 Move and store collection material

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package version 2.0.

Application

This unit describes the skills and knowledge required to handle, pack and unpack collection material when moving or storing it. It involves using techniques and materials suited to the material in accordance with established guidelines.

It applies to individuals who handle, move and store different types of collection material. Movement and storage may be within the same building of an organisation or to an external location. Storage may be short or long-term.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Cultural services - collection management

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine movement and storage requirements	1.1 Assess documentation to determine scope of work required for movement and storage of collection material 1.2 Identify organisational procedures and guidelines and specific requirements and confirm with relevant personnel 1.3 Assess collections to estimate projected current and future storage requirements with relevant personnel

ELEMENT	PERFORMANCE CRITERIA
	1.4 Seek specialist advice or assistance where required
2. Pack and unpack collection material	2.1 Select appropriate packing materials, tools and equipment and use safely 2.2 Handle collection material safely and in a manner that maintains integrity of collection material 2.3 Apply conservation and sustainability principles in the use of packaging materials 2.4 Label packaging to facilitate easy identification by others during transportation and within storage facilities 2.5 Recycle and dispose of waste responsibly
3. Move collection material	3.1 Select appropriate handling and moving equipment, and use safely 3.2 Handle collection material in a manner that protects individual items and contributes to efficient loading and unloading processes 3.3 Identify hazardous items and load them in a manner that minimises health and safety risk 3.4 Inspect load prior to transportation to ensure that items are loaded and secured appropriately, and make adjustments as required 3.5 Prepare transportation documentation
4. Arrange collection material and update records	4.1 Install, position or store collection material as required and within expected timeframes 4.2 Clear and clean work areas according to organisational procedures 4.3 Refer problems to relevant personnel as required 4.4 Update existing movement and storage records and prepare new records as required 4.5 Store records according to organisational policies and procedures

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description

Reading	1.1, 1.2, 2.3, 3.4, 4.2, 4.5	<ul style="list-style-type: none"> Reads and interprets documentation to determine requirements for moving and storing different types of collection material
Writing	2.4, 3.5, 4.4	<ul style="list-style-type: none"> Legibly completes simple documentation, recording key information in a style and format relevant to requirements
Oral Communication	1.2, 1.3, 1.4, 4.3	<ul style="list-style-type: none"> Seeks guidance and follows instructions to progress and complete work in accordance with industry and organisational processes and standards Uses appropriate tone and language when communicating with others, including when making required arrangements for movement or storage
Numeracy	1.3	<ul style="list-style-type: none"> Uses mathematical techniques to estimate time and measurement
Navigate the world of work	1.2, 1.4, 2.1, 2.3, 2.5, 3.1, 3.3, 4.2, 4.4, 4.5	<ul style="list-style-type: none"> Understands roles and responsibilities for completion of tasks, seeking assistance when necessary Takes personal responsibility for following explicit and implicit policies, procedures and legislative requirements
Interact with others	1.2, 1.3, 1.4, 4.3	<ul style="list-style-type: none"> Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met
Get the work done	1.1, 1.3, 2.1, 3.1, 3.4, 4.1, 4.4	<ul style="list-style-type: none"> Plans and implements routine tasks and workload in a time-efficient manner Analyses task requirements in order to decide on appropriate equipment and practices Makes routine decisions based on implementation of standard procedures

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
CUACNM301 Move and store collection material	CULCNM303A Move and store collection material	Updated to meet Standards for Training Packages and clarify intent.	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>

Assessment Requirements for CUACNM301 Move and store collection material

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package version 2.0.

Performance Evidence

Evidence of the ability to:

- identify nature and scope of movement or storage work through review of workplace documentation and consultation with relevant personnel
- determine the job-specific requirements, based on the collection material to be moved and stored, and any cultural protocols and stakeholders to be considered
- prepare identified requirements, seeking specialist advice or assistance where required
- handle, move and store collection items using appropriate tools, equipment, techniques and organisational procedures to maintain the integrity of the collection material and meet required timeframe for movement and storage
- use safe and sustainable work practices during movement and storage work to:
 - handle collection material safely
 - use transport equipment and packaging material safely
 - minimise hazards during the work.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain the key organisational procedures and guidelines relating to:
 - storage and transport documentation and records
 - use of materials, tools and equipment, including labelling
 - manual handling and work health and safety (WHS) procedures and requirements
 - preventive pest management processes
 - waste recycling and disposal
- describe the packing and storage approaches and techniques for:

- culturally sensitive material
- different types of collection material
- internal and external transportation
- short and long-term storage
- explain the record-keeping procedures for collection movement and storage
- identify the security requirements and issues to be considered when moving or storing collection material.
- list sources of specialist advice for moving and storing collection material.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in creative arts industry environments. The assessment environment must include access to:

- a collection to be moved and stored
- materials, tools and equipment for packing, moving and storing collection items
- organisational procedures relating to moving and storing collection material
- sources of advice.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational educational and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>

CULMS002B Research and evaluate Aboriginal or Torres Strait Islander cultural material

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This unit describes the performance outcomes, skills and knowledge required to research the context and interpretation of Aboriginal or Torres Strait cultural material. As such, the unit focuses on the skills to analyse cultural material, including current collections and the impact of post-colonial history. These skills then form the basis for appropriate treatment and interpretation of cultural material. The unit includes a focus on appropriate consultation with the traditional custodians of cultural material.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Application of the Unit

Application of the unit

This unit has particular application to Aboriginal or Torres Strait Islander peoples.

The cultural knowledge necessary to achieve competency in this unit may only be accessible to Aboriginal or Torres Strait Islander peoples. This unit also recognises that there is no single Aboriginal or Torres Strait Islander culture.

The unit deals with complex and interrelated elements of Aboriginal or Torres Strait Islander cultures, which are the cultural and intellectual properties of specific communities across the continent and islands of Australia. These may only be interpreted by appropriate persons, for example those recognised by the local Aboriginal or Torres Strait Islander community as an Elder or custodian of local cultural knowledge.

Any organisation or individual planning to train or assess this unit would be expected to work in a culturally appropriate manner with the appropriate Aboriginal or

Torres Strait Islander community, for example through the establishment of a local Aboriginal or Torres Strait Islander reference group. In particular, it is vital to ensure respectful integration of any local cultural knowledge or protocols that will inform the implementation of the unit.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units Nil

Employability Skills Information

Employability Skills The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary for the qualification in which this unit of competency is packaged, will assist in identifying Employability Skills requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1 Research the context 1.1 Identify *relevant sources of information* on *cultural*

ELEMENT	PERFORMANCE CRITERIA
of Aboriginal or Torres Strait Islander cultural material	<p><i>material</i> and the <i>context</i> for its interpretation</p> <p>1.2 Use <i>formal and informal research techniques</i> in a culturally appropriate manner to access <i>information</i></p> <p>1.3 Critically evaluate the validity of the range of interpretations of cultural material and the cultural relevance to its traditional custodians</p>
2 Assess post-colonial interpretation of Aboriginal or Torres Strait Islander cultural material	<p>2.1 Critically evaluate the ways in which different aspects of post-colonisation history have affected the interpretation of Aboriginal or Torres Strait Islander cultural material</p> <p>2.2 Critically evaluate collections in relation to the <i>context</i> in which materials were collected and interpreted and the respect shown for <i>cultural protocols</i> in sourcing, handling and exhibiting cultural material</p> <p>2.3 Assess ways in which interpretations by those other than traditional custodians may have impacted on communities and/or individuals</p>
3 Develop approaches to the interpretation of Aboriginal or Torres Strait Islander cultural material	<p>3.1 Identify and explore potential <i>new and appropriate approaches to the interpretation of cultural material</i> based on knowledge and understanding of consultation with traditional custodians and respect for their wishes</p> <p>3.2 Integrate the concept and practice of community consultation within interpretive approaches</p> <p>3.3 Develop substantiated positions for interpretive approaches</p> <p>3.4 Enhance interpretative approaches <i>by challenging and adapting</i> own ideas</p>
4 Communicate new approaches to stakeholders	<p>4.1 Identify <i>key stakeholders</i> in the interpretation and exhibition of cultural material, including traditional custodians</p>

ELEMENT

PERFORMANCE CRITERIA

- 4.2 Consult and negotiate ways with stakeholders in culturally appropriate ways to interpret Aboriginal or Torres Strait *Islander cultural material* in accordance with wishes of traditional custodians

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- research and critical-thinking skills to analyse, interpret and present complex and varied references for application to cultural material
- literacy skills to critically evaluate and communicate ideas and concepts surrounding cultural material.

Required knowledge

- broad range of sources of information about post-colonial history, theory and cultural practice relating to Aboriginal or Torres Strait Islander cultural material
- key aspects of post-colonial history and its impact on the collection and interpretation of Aboriginal or Torres Strait Islander cultural material
- copyright, moral rights and intellectual property issues and legislation with particular reference to Aboriginal or Torres Strait Islander cultural material
- cultural protocols and appropriate consultations for the movement, storage and maintenance of cultural material in the relevant context/type of display
- cultural protocols for the exhibition of cultural material in the relevant community context.

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction

EVIDENCE GUIDE

with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- sound knowledge of information sources for Aboriginal or Torres Strait Islander cultural material
- knowledge of cultural protocols and practices as well as appropriate consultative processes in seeking information
- application of research and analytical skills to evaluate Aboriginal or Torres Strait Islander cultural material and its context.

Context of and specific resources for assessment

Assessment must ensure:

- involvement in the assessment process of persons approved of by Elders, appropriate persons or custodians of the relevant community
- access to sources of information on Aboriginal or Torres Strait Islander cultural material.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate
- project to research a specific collection of Aboriginal or Torres Strait Islander cultural material
- project to research and document the cultural significance of particular objects
- case studies to assess ability to research and use different types of information in the analysis of cultural material
- oral or written questioning to assess knowledge of cultural material.

Holistic assessment with other units relevant to the industry sector, workplace and job role is

EVIDENCE GUIDE

recommended, for example:

- CULMS001B Work with Aboriginal or Torres Strait Islander cultural material
- other collection and exhibition management units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant sources of information may include:

- community members (family groups, cultural educators, Elders)
- libraries
- museums
- archives
- cultural centres
- community organisations
- Indigenous units within local, state or national bodies

Cultural material may be:

- part of an existing collection (public or private)
- not yet part of a collection
- held by the local Aboriginal or Torres Strait Islander community or broader community
- held by an organisation external to the community
- held by individuals
- in the care of traditional custodians

The ***context*** of cultural material may relate to:

- pre-colonisation cultural practices
- post-colonisation collection and interpretive practices
- cultural/spiritual significance of cultural material to community
- the way material was acquired and historical view

RANGE STATEMENT

- of Indigenous collections
- treatment of collection materials
- dispersal of skeletal remains and cultural materials within and outside of Australia
- men's or women's business
- secret or non-secret business
- rarity
- locality

Formal and informal research techniques may include:

- discussion
- note taking, listing
- interviews
- questionnaires
- critical discourse
- analysis
- reflection
- comparing information
- summation
- judgement
- observation

Information may relate to:

- philosophy
- Indigenous world views
- effects of colonisation on Indigenous lives and cultures
- dreaming stories
- world histories
- cultural issues
- spiritual beliefs
- aesthetics
- politics
- gender and identity issues
- land and place - traditional custodians of Country
- signs and symbols in cultural practice
- evaluative criticism in relation to interpretations made by post-colonial interpreters
- oral histories

RANGE STATEMENT

Cultural protocols may relate to:

- acquisition of material
- transportation
- storage
- written documentation on cultural materials
- exhibition
- geographic location
- degree of consultation with traditional custodians
- respect for the wishes of traditional custodians

New and appropriate approaches to interpretation may relate to:

- local Aboriginal or Torres Strait Islander community involvement
- different perceptions of both pre and post-colonial history
- interpretation in the context of post-colonial effects and behaviours
- local history
- oral histories
- appropriate consultation with traditional custodians
- respect for the wishes of traditional custodians
- industry/sector debate

Challenging and adapting ideas may include:

- comparing
- contrasting
- reflecting
- critiquing
- judging
- considering merit
- discussing and debating

Key stakeholders may include:

- Indigenous communities, including traditional custodians
- current holders of collections (private and public)
- cultural centres
- Indigenous units within local, state and national bodies
- museum/heritage organisations

Unit Sector(s)

Not applicable.

Competency field

Competency field Aboriginal or Torres Strait Islander Museum Practice

CULMS010B Contribute to the preservation of cultural material

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This unit describes the performance outcomes, skills and knowledge required to contribute to the preservation of cultural material through a sound knowledge of conservation principles, practices and ethics and the application of basic preservation activities.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Application of the Unit

Application of the unit

This unit applies to individuals who have significant knowledge of preservation issues and may be involved in the application of basic preservation techniques with the involvement of a professional conservator.

The content of this unit relates to work that has a significant impact on Australia's cultural heritage and care must be taken to ensure appropriate implementation of the unit.

Any individual or organisation planning to undertake training and/or assessment of this unit must therefore consult with an appropriately qualified conservator or conservation organisation. The Australian Institute for the Conservation of Cultural Material is the recognised professional body in this area.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units Nil

Employability Skills Information

Employability Skills The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary for the qualification in which this unit of competency is packaged, will assist in identifying Employability Skills requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1 Develop preservation skills and knowledge

- 1.1 Seek and access *opportunities to develop, update and maintain knowledge of preservation* issues and concepts
- 1.2 Integrate knowledge into work activities within scope of individual responsibility

2 Undertake basic preservation activities

- 2.1 Undertake *basic preservation activities* within scope of responsibility as agreed with a conservator and in accordance with *organisational plans and policies*
- 2.2 Correctly apply techniques in a manner which

ELEMENT	PERFORMANCE CRITERIA
	maintains the integrity of the <i>cultural material</i>
2.3	Record data generated in the course of activities clearly and accurately in the appropriate format
2.4	Follow <i>health, safety and environmental requirements</i> at all times
2.5	Ensure that ethical and <i>cultural protocols</i> are adhered to at all times

Required Skills and Knowledge

Required Skills and knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- learning skills to undertake ongoing professional development and acquisition of knowledge around preservation issues and concepts
- literacy skills to interpret conservation plans, to research conservation information, document and to report on condition of cultural material.

Required knowledge

- distinction between preservation, conservation and restoration
- basic preservation principles and methods
- principles and methods for handling cultural material
- available sources of appropriate expert advice
- AICCM Code of Ethics and Code of Practice
- copyright, moral rights and intellectual property legislation and issues that impact on conservation
- cultural protocols that impact on conservation of cultural material, including those for Aboriginal or Torres Strait Islander material
- role of a conservator and of a person working under the guidance of a conservator, including the scope of work undertaken by each and rationale for this
- requirements for safe work and manual handling
- formats and features of conservation plans, object condition reports.

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- sound general knowledge of preservation techniques relevant to the collection/industry sector
- understanding of conservation ethics and cultural protocols, including limitations on the scope of work to be undertaken
- practical demonstration of competent and safe techniques working on one or more items under the guidance of a conservator.

Context of and specific resources for assessment

Assessment must ensure:

- access to cultural material
- access to equipment, materials and tools used in basic preservation activities.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate
- assessment of cultural material on which the candidate has worked
- direct observation of the candidate using techniques
- evaluation of candidate's responses to different collection scenarios to assess ability to develop approaches for different preservation needs and articulate different challenges and issues to be considered
- oral or written questioning to assess knowledge of different techniques and procedures.

EVIDENCE GUIDE

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- CULMS009B Implement preventive conservation activities.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Opportunities to develop, update and maintain knowledge of preservation issues and concepts may include:

- research
- attendance at seminars, workshops
- membership of professional organisations
- using conservator as a mentor
- reading current journals, newsletters and electronic discussion lists

Basic preservation activities will vary depending on the type of cultural material, but may include:

- surface cleaning
- designing/making storage enclosures and display supports
- attaching backboards to paintings
- creating hanging systems for paintings
- mounting and framing

Activities must be undertaken in accordance with advice from a specialist conservator to avoid potential damage to cultural material.

Organisational plans and policies vary in structure and

- preservation plans
- conservation plans

RANGE STATEMENT

name but may include:

- collection management policies
- disaster preparedness policies

Cultural material is defined as 'objects, collections, artworks, specimens, structures or sites' and includes:

- archaeological material
- books and manuscripts
- cultural sites/buildings
- ethnographic material
- flora and fauna
- film/audiovisual material
- furniture
- photographs
- technological/industry items
- textiles
- works on paper/canvas

Health, safety and environmental requirements may relate to:

- use of chemicals or other toxic substances
- storage of chemicals
- provision and use of safety equipment
- safe manual handling
- safe use of tools and equipment
- reporting of occupational health and safety issues, including events and near misses
- impact on other parts of the collection
- toxic and hazardous materials in a collection
- condition/stability of item (dirt, mould, dust and pesticides)

Cultural protocols may relate to:

- who can handle the cultural material
- where an item may be handled
- when an item may be handled
- consultation on potential treatments
- storage requirements
- appearance of the item
- relationship between item and other material in the collection
- methods and approaches to display

Unit Sector(s)

Not applicable.

Competency field

Competency field Preventive Conservation

FDFFS1001A Follow work procedures to maintain food safety

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to maintain food safety when carrying out work tasks. Basic food safety practices include personal hygiene and conduct, food handling, housekeeping and waste disposal related to work tasks and responsibilities where work involves routine manual processes and/or operation of simple automated equipment.
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Application of the Unit

Application of the unit	This unit is based on and equivalent to the guideline food safety unit GFSBFSPA Follow basic food safety practices. Note that this unit does not apply to the pharmaceutical industry. Refer to FDFPH1001A Follow work procedures to maintain Good Manufacturing Practice.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Handle food safely	1.1. Food handling requirements are identified 1.2. Food handling is carried out according to the food safety program 1.3. The workplace is maintained in a clean and tidy order to meet workplace standards 1.4. Work is conducted in accordance with workplace environmental guidelines
2. Identify, control and report food safety hazards	2.1. Work area, materials, equipment and product are routinely monitored to ensure compliance with food safety requirements 2.2. Processes, practices or conditions which are not consistent with the food safety program are identified and corrective action is taken within the level of responsibility
3. Comply with personal hygiene standards	3.1. Personal hygiene meets the requirements of the food safety program 3.2. Health conditions and/or illness are reported as required by the food safety program 3.3. Clothing and footwear worn is appropriate for the food handling task and meets the requirements of the food safety program 3.4. Movement around the workplace complies with the food safety program

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- locate and follow workplace information relating to food safety responsibilities
- monitor own work and implement any controls as required by the food safety program, such as visual inspection and checks
- follow workplace procedures to maintain food safety as required by the food safety program relating to own work
- identify and correct or report situations that do not meet the requirements of the food safety program and/or could result in unsafe food
- handle, clean and store equipment, utensils, packaging materials and similar items according to the requirements of the food safety program as required by work role
- maintain personal hygiene consistent with the food safety program
- take necessary precautions when moving around the workplace and/or from one task to another to maintain food safety
- wear and maintain appropriate clothing/footwear as required by work tasks and consistent with the requirements of the food safety program
- report health conditions and illness as appropriate according to the food safety program
- handle and/or dispose of out-of-specification or contaminated materials, ingredients and product, waste and recyclable material according to food safety program as required by work responsibilities
- maintain the work area in a clean and tidy state
- identify and report signs of pest infestation
- clean and sanitise equipment according to enterprise procedures
- record food safety information according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- food safety requirements related to work responsibilities, including personal hygiene, requirements and procedures to report illness and safe food handling practices for own work, as well as an awareness of the possible consequences of

REQUIRED SKILLS AND KNOWLEDGE

not following these procedures

- common types and sources of contamination that occur in the work area, such as cross contamination
- control methods and procedures used in the , such as reporting non-compliance and following instructions
- storage and handling requirements for ingredients, materials and product used related to work role
- housekeeping requirements and responsibilities relating to own work, and use and storage of housekeeping/cleaning equipment where required
- purpose and importance of cleaning and sanitation procedures
- suitable standard for materials, equipment and utensils used in the work area
- waste collection, recycling and handling procedures relevant to own work responsibilities
- procedures to follow in the event of pest sighting or discovery of infestation
- clothing and footwear requirements for working in and/or moving between food handling areas
- personal clothing maintenance, laundering and storage requirements
- appropriate bandages and dressings to be used when undertaking food handling
- cleaning procedures where relevant
- recording requirements and responsibilities where relevant

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- identify food safety handling requirements in the workplace
- apply and monitor own compliance with food safety standards
- maintain required standards of personal hygiene

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • maintain clean and tidy work area • report non-compliances • apply safe work practices and identify OHS hazards and controls.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • food safety information relating to the workplace, including a food safety program outlining food safety hazards and control methods. It may also include company policies, procedures and codes of practice, such as Good Manufacturing Practice (GMP) • related work instructions and procedures • work tasks and responsibilities • cleaning and sanitation policies and procedures • appropriate clothing and related apparatus • reporting and monitoring systems.
Method of assessment	<p>This unit should be assessed together with core and other units of competency relevant to the work role. Examples could be:</p> <ul style="list-style-type: none"> • FDFOP2004A Clean and sanitise equipment <p>Where the company operates a combined quality/food safety system, assessment of this unit should be combined with assessment of:</p> <ul style="list-style-type: none"> • FDFOP1009A Follow work procedures to maintain quality.
Guidance information for assessment	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work

RANGE STATEMENT	
situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Food safety program	A food safety program is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the food safety standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures
Food safety information	Food safety information may be provided in: <ul style="list-style-type: none"> • food safety program • standard operating procedures (SOPs) • specifications • log sheets • written or verbal instruction
Food handling	Food handling refers to: <ul style="list-style-type: none"> • food receipt and storage • food preparation, cooking, holding, cooling, chilling and reheating • packaging • disposal
Products/materials handled and stored	Products/materials handled and stored can include: <ul style="list-style-type: none"> • raw materials • ingredients • consumables • part-processed product • finished product • cleaning materials
Breach of food safety procedures	Examples of a breach of food safety procedures could include: <ul style="list-style-type: none"> • failure to check delivery temperatures of potentially hazardous chilled food • failure to place temperature-sensitive food in temperature controlled storage conditions

RANGE STATEMENT	
	<p>promptly</p> <ul style="list-style-type: none"> • failure to wash hands when required • use of cloths for unsuitable purposes
Responsibility for monitoring food safety	Responsibility for monitoring food safety, identifying breaches in food safety procedures and taking corrective action relates to own tasks and responsibilities and occurs in the context of the food safety program in the workplace
Food safety hazard	A food safety hazard is a biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect
Personal hygiene requirements	Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in the Food Safety Standard 3.2.2, Division 4:14 and/or state or territory legislation/regulations
Reporting of health conditions and illness requirements	Reporting of health conditions and illness requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in Food Safety Standard 3.2.2, Division 4:13 and/or state or territory legislation/regulations
Appropriate clothing and footwear	<p>Appropriate clothing and footwear depends on work requirements. It should be designed to ensure that the body and clothing itself does not contaminate food or surfaces likely to come into contact with food. Examples of clothing designed to prevent contamination by the body include:</p> <ul style="list-style-type: none"> • purpose designed overalls or uniforms • hair-nets • beard snoods • gloves • overshoes

Unit Sector(s)

Unit sector	Food safety
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

FDFFS2001A Implement the food safety program and procedures

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to maintain personal hygiene and conduct food handling, housekeeping and waste disposal related to work tasks and responsibilities where work involves operation of production and/or packaging equipment and processes.
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Application of the Unit

Application of the unit	This unit is based on and equivalent to the guideline food safety unit GFSMFSRA Apply and monitor food safety requirements. Note that this unit does not apply to the pharmaceutical industry. Refer to FDFPH2001A Apply Good Manufacturing Practice procedures.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Implement the food safety program	1.1. Food handling requirements are identified 1.2. Food handling is carried out according to the food safety program 1.3. Food safety hazards are controlled as required by the food safety program 1.4. Where food safety control requirements are not met, the incident is promptly reported and corrective action is taken 1.5. Food safety information is recorded to meet requirements of the food safety program 1.6. The workplace is maintained in a clean and tidy order to meet workplace standards 1.7. Work is conducted in accordance with workplace environmental guidelines
2. Participate in maintaining and improving food safety	2.1. Work area, materials, equipment and product are routinely monitored to ensure compliance with food safety requirements 2.2. Processes, practices or conditions which could result in a food safety breach are identified and reported according to workplace reporting requirements 2.3. Corrective action is taken in accordance with the food safety program 2.4. Food safety issues are raised with designated

ELEMENT	PERFORMANCE CRITERIA
	personnel
3. Comply with personal hygiene standards	3.1. Personal hygiene meets the requirements of the food safety program 3.2. Health conditions and/or illness are reported as required by the food safety program 3.3. Clothing and footwear worn is appropriate for the food handling task and meets the requirements of the food safety program 3.4. Movement around the workplace complies with the food safety program

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- locate and follow workplace information relating to food safety responsibilities
- follow workplace procedures to maintain food safety as required by the food safety program relating to own work
- monitor food safety hazards as required by the food safety program, including methods such as visual inspection, sampling and testing
- record results of monitoring, and maintain records as required by the food safety program
- identify and report situations that do not meet the requirements of the food safety program and/or could result in unsafe food
- take corrective action as required by food safety program within level of responsibility
- handle, clean and store equipment, utensils, packaging materials and similar items according to the requirements of the food safety program as required by work role
- maintain personal hygiene consistent with the food safety program
- take necessary precautions when moving around the workplace and/or from one task to another to maintain food safety
- wear and maintain appropriate clothing/footwear as required by work tasks and consistent with the requirements of the food safety program
- report health conditions and illness as appropriate according to the food safety program
- handle and dispose of out-of-specification or contaminated food, waste and

recyclable material according to food safety program as this requirement relates to own work responsibility

- maintain the work area in a clean and tidy state
- identify and report signs of pest infestation
- record food safety information in appropriate format
- clean and sanitise equipment according to enterprise procedures
- collect samples and conduct tests according to the food safety program according to enterprise procedures
- participate in investigating food safety breaches according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- sources of information and expertise on procedures and responsibilities for food safety relating to own work
- basic concepts of HACCP-based food safety, including identification of hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met
- food safety management arrangements in the workplace, including awareness of food safety legislation, workplace policies and procedures to implement responsibilities, understanding the relationship between the quality system and food safety program, personnel responsible for developing and implementing the food safety program, the role of internal and external auditors as appropriate, procedures followed to investigate contamination events, and performance improvement processes
- awareness of common microbiological, physical and chemical hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences and control methods to prevent occurrence
- basic understanding of the properties, handling and storage requirements of ingredients, materials and products handled and used
- suitable standard for materials, measuring devices, equipment and utensils used in the work area
- food safety requirements related to work responsibilities, including personal hygiene, requirements and procedures to report illness and safe food handling practices for own work
- methods used to monitor that food safety is under control, including the purpose of sampling and taking measurements, such as temperature and pH, and conducting inspections and tests
- action required in the event of non-compliance (corrective action is typically described in the food safety program and/or related workplace information)
- purpose of keeping records and the recording requirements of the food safety

program

- methods used in the workplace to isolate or quarantine food which may be unsafe
- product and ingredient traceability procedures, such as product recall where required by work responsibilities
- clothing and footwear requirements for working in and/or moving between food handling areas
- personal clothing maintenance, laundering and storage requirements
- appropriate bandages and dressings to be used when undertaking food handling
- housekeeping requirements and responsibilities relating to own work, and use and storage of housekeeping/cleaning equipment where relevant
- procedures to follow in the event of pest sighting or discovery of infestation
- purpose and importance of cleaning and sanitation procedures
- waste collection, recycling and handling procedures relevant to own work responsibilities
- cleaning and sanitation procedures where relevant
- impact of rework handling/addition on food safety where relevant
- sampling and test methods where relevant

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Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- identify own responsibilities with regard to food safety
- identify food safety risks in the workplace and the control measures used to manage them
- apply control measures in own work
- monitor compliance with food safety standards
- identify and act on non-compliances and participate in improving safety
- maintain required standards of personal hygiene
- complete workplace records as required

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • apply safe work practices and identify OHS hazards and controls • apply food safety procedures.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • food safety information relating to the workplace, including a food safety program outlining food safety hazards and control methods. It may also include company policies, procedures and codes of practice, such as: <ul style="list-style-type: none"> • Good Manufacturing Practice (GMP) • related work instructions and procedures • work tasks and responsibilities • appropriate clothing and related apparatus • reporting and monitoring systems • cleaning and sanitation policies and procedures as required • sampling and test procedures and related equipment as required.
Method of assessment	<p>This unit should be assessed together with other units of competence relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> • FDFOP2004A Clean and sanitise equipment • FDFOP2013A Apply sampling procedures • FDFOP2063A Apply quality systems and procedures • MSL973001A Perform basic tests.
Guidance information for assessment	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised

RANGE STATEMENT	
wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
A food safety program	A food safety program is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the food safety standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures
Workplace information	Workplace information may be provided in: <ul style="list-style-type: none"> • food safety program • standard operating procedures (SOPs) • specifications • log sheets • written or verbal instruction
Food handling	Food handling refers to: <ul style="list-style-type: none"> • food receipt and storage • food preparation • cooking, holding, cooling, chilling and reheating • packaging, disposal
Products/materials handled and stored	Products/materials handled and stored can include: <ul style="list-style-type: none"> • raw materials • ingredients • consumables • part-processed product • finished product • cleaning materials
Examples of a breach of food safety procedures	Examples of a breach of food safety procedures could include: <ul style="list-style-type: none"> • failure to check delivery temperatures of potentially hazardous chilled food

RANGE STATEMENT	
	<ul style="list-style-type: none"> • failure to place temperature-sensitive food in temperature controlled storage conditions promptly • failure to wash hands when required • use of cloths for unsuitable purposes
Responsibility for monitoring food safety	Responsibility for monitoring food safety, identifying breaches in food safety procedures and taking corrective action relates to own tasks and responsibilities and occurs in the context of the food safety program in the workplace
Monitoring	Monitoring describes the methods used to confirm that a food safety hazard is in control, such as: <ul style="list-style-type: none"> • taking temperatures • collecting samples • conducting visual inspections • conducting other tests as required
Food safety hazard	A food safety hazard is a biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect
Hygiene requirements	Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in the Food Safety Standard 3.2.2, Division 4:14 and/or state or territory legislation/regulations
Reporting of health conditions and illnesses requirements	Reporting of health conditions and illnesses requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in Food Safety Standard 3.2.2, Division 4:13 and/or state or territory legislation/regulations
Appropriate clothing and footwear	Appropriate clothing and footwear depends on work requirements. It should be designed to ensure that the body and clothing itself does not contaminate food or surfaces likely to come into contact with food. Examples of clothing designed to prevent contamination by the body include: <ul style="list-style-type: none"> • purpose designed overalls or uniforms • hair-nets

RANGE STATEMENT

	<ul style="list-style-type: none"> • beard snoods • gloves • overshoes
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Unit Sector(s)

Unit sector	Food safety
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

FDFFS3001A Monitor the implementation of quality and food safety programs

Modification History

November 2011: minor typographical error corrected.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to provide a leadership role in supporting day-to-day implementation of the food safety/quality programs in a work area. It also involves supporting others to implement the requirements of the food safety/quality procedures.
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Application of the Unit

Application of the unit	<p>This unit applies to those with formal responsibility for others, and to those required to model workplace policies and procedures but who have no formal management role.</p> <p>This unit is based on and equivalent to the guideline food safety unit GFSOFSA Oversee the day-to-day implementation of food safety in the workplace.</p> <p>Note that this unit does not apply to the pharmaceutical industry. Refer to FDFPH3001A Monitor and maintain Good Manufacturing Practice procedures.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Prerequisite units		
	FDFFS2001A	Implement the food safety program and procedures

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Ensure others in the work area are able to meet quality and food safety requirements	<p>1.1. Hazard control and clothing and equipment appropriate to work requirements are available, functional and correctly fitted</p> <p>1.2. Information on food safety/quality responsibilities and procedures is current, accessible and communicated to others in the work area</p> <p>1.3. Information about identified hazards and the outcomes of risk assessment and risk control procedures is accessible and communicated to others in the work area</p> <p>1.4. Food safety/quality hazards and control measures used in the work area can be identified by those in the work area</p> <p>1.5. Mentoring and coaching support is available to support individuals/groups to implement quality and</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>safe food handling procedures</p> <p>1.6.Training needs are identified and addressed within level of responsibility</p>
<p>2. Monitor observance of quality standards and food safety programs in the work area</p>	<p>2.1.Work procedures in the work area are clearly defined, documented and followed</p> <p>2.2.Deviation from identified procedures is identified, reported and addressed within level of responsibility</p> <p>2.3.Personal behaviour is consistent with workplace policies and procedures that support food safety and quality</p> <p>2.4.Food safety and/or quality hazards are identified and reported according to workplace procedures</p> <p>2.5.Food safety and quality information is recorded to meet workplace reporting requirements</p> <p>2.6.The work area is maintained according to housekeeping standards</p> <p>2.7.Work is conducted in accordance with workplace environmental guidelines</p>
<p>3. Take corrective action in response to quality and food safety non-compliance</p>	<p>3.1.Workplace procedures for responding to quality and food safety non-compliance are promptly implemented</p> <p>3.2.Hazardous events are investigated to identify cause</p> <p>3.3.Control measures to prevent recurrence and minimise risks of hazardous events are implemented</p>
<p>4. Maintain and improve quality and food safety in the work area</p>	<p>4.1.Processes or conditions which could result in a breach of food safety procedures or quality specifications are identified, assessed, removed or and/reported within level of responsibility and according to workplace procedure</p> <p>4.2.Risk assessments are conducted and appropriate control measures are identified and implemented in the work area</p> <p>4.3.Recommendations arising from risk assessments are implemented within level of responsibility</p> <p>4.4.Inadequacies in control measures are identified and reported according to company reporting requirements</p> <p>4.5.Matters raised relating to quality/food safety are promptly resolved and/or referred to appropriate personnel</p> <p>4.6.The work group is consulted and advised of</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>quality/food safety matters relevant to work role</p> <p>4.7. Opportunities for improving food safety and quality are identified and raised with relevant personnel</p> <p>4.8. Procedures are developed or revised to support effective control of quality and food safety hazards</p> <p>4.9. Quality/food safety records are reviewed to ensure they are complete and meet the quality system, food safety program and legal requirements</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- access, interpret and communicate information about the food safety program, quality requirements and related procedures to others in the work area
- demonstrate two-way communication, including active listening and responding constructively to feedback
- provide access to and maintain current food safety/quality documentation
- model safe food handling and quality practices and procedures to achieve required outcomes, including demonstrating:
 - work procedures that meet the requirements of quality and food safety
 - cleaning and sanitising equipment
 - sampling and testing as appropriate according to quality and food safety requirements
 - maintaining personal hygiene
 - wearing appropriate clothing and footwear as required by the work task
 - following procedures when moving within and between work areas
 - reporting health conditions and illnesses according to workplace procedures
 - handling, cleaning and storing equipment, utensils and packaging materials as appropriate
- identify control points in the work area and demonstrate monitoring techniques used (control points include critical, quality and regulatory control points)
- support others to meet quality standards and follow food safety procedures by ensuring that all personnel in the work area receive the information required and have the necessary skills and equipment to carry out their responsibilities

REQUIRED SKILLS AND KNOWLEDGE

- identify, report and/or address food safety/quality non-compliance in an appropriate and timely manner within level of responsibility
- determine when and how to make adjustments to maintain output within level of responsibility
- identify, report and/or address food safety/quality training and development needs of others in the work area
- ensure that appropriate and timely action is taken in response to non-compliance
- handle and dispose of out-of-specification or contaminated food, waste and recyclable material according to food safety program as this requirement relates to own work responsibility
- participate in investigations of non-compliance and risk assessment processes
- participate in consultation processes to improve quality and food safety outcomes in the workplace
- review practice and procedures to implement recommendations arising from risk assessments and/or improvement proposals within level of responsibility, such as collecting and analysing food safety/quality records, reviewing operating procedures and communicating changes to others in the work area
- ensure that housekeeping standards are maintained and that equipment is in operational order, such as participating in the management of equipment calibration
- monitor the recording of quality and food safety information to confirm that records accurately reflect performance and meet the requirements of the food safety and quality programs
- participate in food recall procedures as required, within level of responsibility
- facilitate consultation processes according to enterprise procedures
- lead investigations of quality and food safety incidents according to enterprise procedures
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- sources of information and expertise on procedures and responsibilities for food safety relevant to the workplace
- principles of a HACCP-based approach to managing food safety, including identifying hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met
- basic concepts of quality assurance including hazards, risk assessment and control methods
- company programs and systems in place to manage and support quality and food safety in the workplace, which may involve separate or integrated programs, including systems for maintaining and updating documents, such as operating procedures and specifications
- clothing and footwear requirements for working in and/or moving between food

REQUIRED SKILLS AND KNOWLEDGE

handling areas, including personal clothing maintenance, laundering and storage requirements

- appropriate bandages and dressings to be used when undertaking food handling
- housekeeping requirements and responsibilities relating to own work, where relevant this includes use and storage of housekeeping/cleaning equipment
- procedures to follow in the event of pest sighting or discovery of infestation
- purpose and importance of cleaning and sanitation procedures
- legal obligations for food safety and quality, including an awareness of government legislation and customer requirements
- food safety and quality responsibilities and requirements relating to the work area
- awareness of common micro biological, physical and chemical hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences and control methods to prevent occurrence
- suitable standard for materials, measuring devices, equipment and utensils used in the work area
- properties of food and ingredients used that affect food safety, including an understanding of related storage, processing and handling requirements
- current technical and process knowledge required to participate in investigations of food safety/quality hazards, risks and incidents within level of responsibility, including an understanding of common micro biological, physical and chemical hazards, related control methods and the way changes in equipment and/or processing methods can affect food safety and quality outcomes
- procedures for identifying unsafe and/or non-conforming product, including control points and evidence of out-of-specification product or materials
- sampling procedures, test methods and inspections
- options for responding to non-compliance, including legal responsibility, risk management and cost/implications of different responses and level of responsibility for decision making
- methods used in the workplace to isolate or quarantine food which may be unsafe
- waste collection, recycling, handling and disposal, including handling/disposal requirements for different types of waste, such as hazardous waste where relevant
- traceability and recall procedures within level of responsibility
- documentation system and procedures, including record keeping to meet both company and legal requirements, procedures for developing and/or reviewing workplace procedures, and document control systems used in the workplace
- auditing arrangements, roles and responsibilities as they relate to own work responsibilities, such as internal and external audit processes
- appropriate communication skills and techniques to convey information on quality and food safety requirements to others in the workplace
- cleaning and sanitation procedures where relevant
- impact of rework handling/addition on food safety where relevant
- sampling and test methods where relevant

REQUIRED SKILLS AND KNOWLEDGE

- facilitation and consultation techniques where relevant

Evidence Guide**EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- describe quality and food safety program, risks and control measures of the work area
- confirm that control measures are in place and that personnel in the work area are equipped and informed to implement programs
- identify, address and follow up on non-compliances
- identify causes of non compliances
- conduct risk assessments and recommend responsive action
- provide support to others to implement the programs
- complete and maintain documentation.

Context of and specific resources for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

- food safety program for the work area which identifies critical control points, control measures and corrective action
- quality policy, system and procedures
- work area or system in which quality and food safety practices and procedures are to be monitored
- personal protective clothing and equipment as required
- review/audit arrangements
- reporting and monitoring systems.

EVIDENCE GUIDE	
Method of assessment	<p>This unit should be assessed together with other units of competence relevant to the function or work role.</p> <p>Examples could be:</p> <ul style="list-style-type: none"> • FDFPPL3001A Participate in improvement processes • FDFPPL3004A Lead work teams and groups • BSBRES401A Analyse and present research information.
Guidance information for assessment	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Work responsibilities	<p>Work responsibilities may include formal or informal responsibility for modelling appropriate quality/food safety policies and procedures and providing a support role to others in the work area</p>
Food safety program	<p>A food safety program is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the food safety standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures</p>

RANGE STATEMENT	
Quality systems	Quality systems may be externally accredited, such as an ISO system, or internally designed and managed
Workplace information	Workplace information may be provided in: <ul style="list-style-type: none"> • food safety and quality policies and programs • standard operating procedures (SOPs) • specifications • log sheets • written or verbal instruction incorporating food safety and quality requirements
Incidents	A food safety incident is: <ul style="list-style-type: none"> • a situation where the safe limits or parameters identified by the food safety program are not met A quality incident is: <ul style="list-style-type: none"> • a situation where the quality limits or parameters identified in specifications or processing instructions are not met
Monitoring	Monitoring describes the methods used to confirm that a food safety or quality hazard is in control, such as: <ul style="list-style-type: none"> • taking temperatures • collecting samples • conducting visual inspections • additional testing as required
Responsibility for identifying breaches of food safety procedures	Responsibility for identifying breaches of food safety procedures and taking corrective action occurs in the context of the food safety program and within scope of responsibility
Responsibility for identifying non-compliance against quality standards	Responsibility for identifying non-compliance against quality standards occurs within the context of defined standards or specifications and relates to work area
Personal hygiene requirements	Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in the Food Safety Standard 3.2.2, Division 4:14 and/or state or territory

RANGE STATEMENT	
	legislation/regulations
Reporting of health conditions and illnesses	Reporting of health conditions and illnesses requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in Food Safety Standard 3.2.2, Division 4:13 and/or state or territory legislation/regulations
Operator responsibilities	<p>The operator at this level may not have direct responsibility for overseeing the training/development of team members. At a minimum they must be able to identify development needs of others in the work area and refer this information to the relevant personnel.</p> <p>The operator at this level may not have responsibility for independently assessing risks and determining the effectiveness of control measures. However, they would be expected to observe day-to-day effectiveness and participate in assessment and review processes. Responsibilities at this level may include facilitating consultation processes within level of responsibility</p>
Record keeping	Record keeping complies with customer, legal and food safety program requirements

Unit Sector(s)

Unit sector	Food safety
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

FDFGPS2011A Operate a creamed honey manufacture process

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to set up, monitor, and adjust a process to produce creamed honey.
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Application of the Unit

Application of the unit	<p>This unit has application in a production environment within the honey processing industry. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of machines and equipment used to cream honey.</p> <p>When operators are required to perform batch or product changeover procedures as part of this work process, the procedures should be used to customise the application of this unit. Where more detailed changeovers are carried out, FDFOP2011A Conduct routine maintenance, should be selected.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare the equipment and process for operation	<p>1.1.Liquid and seed honey is confirmed and available to meet production requirements</p> <p>1.2.Cleaning and maintenance requirements and status are identified and confirmed</p> <p>1.3.Machine components and related attachments are fitted and adjusted to meet operating requirements</p> <p>1.4.Processing/operating parameters are set to meet safety and production requirements</p> <p>1.5.Equipment performance is checked and adjusted as required</p> <p>1.6.Pre-start checks are carried out as required by workplace requirements</p>
2. Operate and monitor the creamed honey manufacture process	<p>2.1.The process is started and operated according to workplace procedures</p> <p>2.2.Equipment is monitored to identify variation in operating conditions</p> <p>2.3.Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements</p> <p>2.4.The process is monitored to confirm that specifications are met</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification</p> <p>2.6. The work area is maintained according to housekeeping standards</p> <p>2.7. Work is conducted in accordance with workplace environmental guidelines</p> <p>2.8. Workplace records are maintained according to workplace recording requirements</p>
3. Shut down the creamed honey manufacture process	<p>3.1. The appropriate shutdown procedure is identified</p> <p>3.2. The process is shut down according to workplace procedures</p> <p>3.3. Maintenance requirements are identified and reported according to workplace reporting requirements</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- access workplace information to identify processing requirements
- select, fit and use personal protective clothing and/or equipment
- confirm supply of necessary materials and services, including selecting appropriate seed honey (it may also require selection of more than one liquid honey to meet required product characteristics)
- conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters (temperature and agitation settings), cancelling isolation or lock outs as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational
- start, operate, monitor and adjust process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification
- monitor supply and flow of materials to and from the process
- take corrective action in response to out-of-specification results
- respond to and/or report equipment failure within level of responsibility

REQUIRED SKILLS AND KNOWLEDGE

- locate emergency stop functions on equipment
- follow isolation and lock out/tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- complete workplace records as required
- maintain work area to meet housekeeping standards
- use process control systems according to enterprise procedures
- demonstrate batch/product changeovers according to enterprise procedures
- collect samples and conduct tests according to enterprise procedures
- conduct routine maintenance according to enterprise procedures
- clean and sanitise equipment according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- basic principles of crystallisation, including an understanding of crystal structure and where appropriate, methods used to reduce crystal size, the effects of temperature and agitation on crystal formation, appropriate ratio of seed to liquid honey and factors that influence the crystallisation process including moisture content and crystal size
- basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- quality and organoleptic characteristics of different types of honey processed
- quality characteristics to be achieved by the final product and related test methods used to confirm quality
- quality requirements of seed and liquid honey used and the effect of variation on the final product
- operating requirements, parameters and corrective action required where the process is outside specified operating parameters (typical operating parameters include ambient and processing temperatures, agitation speeds and holding times and temperatures)
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor each stage of the production process, such as inspecting, measuring and testing as required
- inspection or test points (control points) in the process and the related procedures and recording requirements

REQUIRED SKILLS AND KNOWLEDGE

- contamination/food safety risks associated with the process and related control measures (this relates specifically to air inclusion and moisture content and related methods of control)
- common causes of variation and corrective action required
- factors that affect the stability and shelf-life of the finished product and options to extend shelf-life, including storage conditions for packed product
- occupational health and safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- product/process changeover procedures and responsibilities where relevant
- sampling and testing associated with process monitoring and control where relevant
- routine maintenance procedures where relevant
- cleaning and sanitation procedures where relevant

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- conduct pre-start checks on machinery used for creaming honey
- start, operate, monitor and adjust process equipment

EVIDENCE GUIDE	
	<p>to achieve required quality outcomes</p> <ul style="list-style-type: none"> • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply food safety procedures.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment • work procedures, including advice on safe work practices, food safety, quality and environmental requirements • information on equipment capacity and operating parameters • production schedule/batch instructions • specifications, control points and processing parameters • process and related equipment and services • seed and liquid honey • sampling schedules and test procedures and equipment as required • documentation and recording requirements and procedures • cleaning procedures, materials and equipment as required.
Method of assessment	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> • FDFOP2003A Clean equipment in place • FDFOP2004A Clean and sanitise equipment • FDFOP2011A Conduct routine maintenance • FDFOP2013A Apply sampling procedures • FDFOP2030A Operate a process control interface • MSL973001A Perform basic tests.
Guidance information for assessment	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where</p>

EVIDENCE GUIDE

	possible, over a number of assessment activities.
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Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Policies and procedures

Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

Legislative requirements

Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes:

- the Food Standards Code, including labelling, weights and measures legislation
- legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity

Workplace information

Workplace information may include:

- standard operating procedures (SOPs)
- specifications/recipes
- production schedules and instructions
- manufacturers' advice
- standard forms and reports

Production processes

Production processes may be partly or fully automated. While processes vary, typical stages include:

- addition of seed honey
- holding
- mixing/working
- temperature control

RANGE STATEMENT	
Operation of equipment and processes	Operation of equipment and processes may require: <ul style="list-style-type: none"> the use of process control panels and systems
Equipment	Equipment may include: <ul style="list-style-type: none"> jacketed tanks/vats buffer tanks mixers/homogenisers scraped surface heat exchangers agitators and pumps
Services	Services may need to be confirmed. These depend on the nature of the process. Typical examples include: <ul style="list-style-type: none"> power water compressed and instrumentation air

Unit Sector(s)

Unit sector	Grocery products and supplies
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Competency field

Competency field	
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Co-requisite units

Co-requisite units	

FDOP2003A Clean equipment in place

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to prepare process equipment for cleaning in place (CIP) or in-line.
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Application of the Unit

Application of the unit	<p>This unit applies to food processing equipment that is fixed in place and cannot be moved to a cleaning station. It requires the operator to initiate, monitor and control variables during cleaning. Where this is not a requirement of a CIP system, this unit may not be relevant.</p> <p>Where the operator is primarily responsible for cleaning and/or where they require a more detailed knowledge of cleaning and sanitation processes to carry out cleaning responsibilities, FDFOP2004A Clean and sanitise equipment, should be considered.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for cleaning	1.1. Chemical stocks are available to meet cleaning and sanitation requirements 1.2. Services are confirmed as available and ready for operation 1.3. Equipment shutdown is planned and equipment is taken off-line for cleaning 1.4. Equipment and related valves and pipework are configured to confirm readiness for cleaning 1.5. The plant is set for the cleaning cycle
2. Operate and monitor the cleaning process	2.1. The cleaning cycle is undertaken according to company policies and procedures 2.2. The cleaning process is monitored to confirm cleaning meets company requirements 2.3. Cleaning data is recorded according to workplace reporting requirements 2.4. Out-of-specification process and equipment performance is identified, rectified and/or reported
3. Dispose of waste and return plant to operating condition	3.1. Cleaning chemicals are flushed from plant and disposed of according to company policies and procedures

ELEMENT	PERFORMANCE CRITERIA
	3.2. Work is conducted according to environmental requirements 3.3. Plant is set up to meet operational requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- access workplace information, such as the cleaning schedule to identify cleaning requirements
- select, fit and use personal protective clothing and/or equipment
- confirm supply of necessary materials and services
- handle and prepare cleaning and sanitation agents safely, including following correct handling and preparation procedures and use of appropriate protective clothing and equipment as required
- schedule cleaning and/or liaise with related work areas to take equipment and area off-line with minimal disruption to production
- prepare equipment and area for cleaning, such as rendering equipment safe to clean, removing obstacles and unnecessary equipment, correctly positioning equipment (e.g. valves, pipes, vents and taps), selecting appropriate cleaning cycle, removing waste and/or dismantling equipment
- clean equipment according to cleaning process cycle and procedures, such as starting up and operating the CIP process in both automatic and manual modes
- monitor the process and equipment operation to maintain the cleaning process within the required parameters
- locate emergency stop functions on equipment
- return plant to operating order
- return area to working order
- take corrective action in response to out-of-specification results
- advise affected work areas of cleaning schedule and progress
- maintain and store chemicals and related equipment as required
- carry out relevant checks and inspections to confirm effectiveness of cleaning
- sort, collect, treat, recycle or dispose of waste
- record cleaning information
- maintain work area to meet housekeeping standards

REQUIRED SKILLS AND KNOWLEDGE

- conduct routine maintenance according to enterprise procedures
- take samples and conduct tests according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- purpose and basic principles of CIP, including the use and functions of caustic and acid solutions, and cleaning sequence and stages as required in the workplace
- purpose and use of cleaning equipment and chemicals used
- terminology relating to the chemical solutions used
- safe work procedures, including appropriate signage of cleaning activities and safe handling and storage of cleaners and sanitisers used
- purpose and limitations of protective clothing and equipment
- cleaning and sanitation requirements, including different levels of cleaning requirements depending on the reason for cleaning
- characteristics of cleaning and sanitising chemicals used, including basic composition as well as compatibility of chemicals with types of equipment
- methods used to render equipment safe to clean, including the status and purpose of equipment guards, relevant lock out/tagout and isolation procedures
- equipment settings required for cleaning and for operating respectively
- basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment
- inspection points for cleaning and sanitation
- consequences of contamination of process flows by cleaning solutions and related safeguards
- types of waste generated by both the production and the cleaning process and related collection, treatment and disposal requirements
- environmental consequences of incorrect cleaning waste disposal procedures
- requirements to liaise/advise related work areas
- reporting and recording systems
- routine maintenance procedures where relevant
- sampling methods and test procedures where relevant

Evidence Guide

EVIDENCE GUIDE

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to: <ul style="list-style-type: none"> • shut down equipment and prepare for cleaning • prepare and use chemicals according to safe work requirements • clean equipment to meet work standards • monitor cleaning and report or address any non-compliances • flush equipment and dispose of waste according to environmental guidelines • complete required documentation • apply safe work practices and identify OHS hazards and controls • apply food safety procedures.
Context of and specific resources for assessment	Assessment must occur in a real or simulated workplace where the assessee has access to: <ul style="list-style-type: none"> • cleaning procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements • personal protective clothing and equipment • equipment to be cleaned, and related CIP system • chemicals and/or automated chemical addition system • services as required • MSDS where appropriate • cleaning schedule or advice and related standard operating procedures • housekeeping standards and procedures • advice on environmental management issues relevant to work responsibilities • workplace information recording systems, requirements and procedures • sampling and testing schedules and procedures as

EVIDENCE GUIDE	
	relevant to cleaning requirements in the workplace.
Method of assessment	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> • FDFOP2011A Conduct routine maintenance • FDFOP2013A Apply sampling procedures • MSL973001A Perform basic tests.
Guidance information for assessment	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	<p>Work is carried out in accordance with company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements. When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply and reference to food safety is replaced by GMP</p>
Workplace information	<p>Workplace information may include:</p> <ul style="list-style-type: none"> • standard operating procedures (SOPs) • specifications • production cleaning schedules and instructions • signs and symbols • materials safety data sheets (MSDS) • manufacturers' advice • standard forms and reports

RANGE STATEMENT	
Dosing of cleaning chemicals	Dosing of cleaning chemicals may be: <ul style="list-style-type: none"> • automatically controlled or manually dosed
Services	Services may include: <ul style="list-style-type: none"> • power • water • Steam • compressed and instrumentation air
Testing	Where tests are conducted as part of operation, a typical requirement is measurement of pH
Monitoring the process	Monitoring the process is dependent on the nature of equipment. Examples of monitoring include: <ul style="list-style-type: none"> • chemical strength • cycle time • temperatures • time • storage tank levels • condensate quality
Operation and monitoring of equipment and processes	Operation and monitoring of equipment and processes typically requires the use of control panels and systems

Unit Sector(s)

Unit sector	Operational
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

FDOP2004A Clean and sanitise equipment

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers cleaning, sanitation and related procedures for food processing production equipment.
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Application of the Unit

Application of the unit	<p>This unit does not cover cleaning in place (CIP) processes. Where this is a required competency, select <i>FDOP2003A Clean equipment in place</i>.</p> <p>Basic cleaning and sanitation procedures are covered in operational units. This unit should be selected where the operator is primarily responsible for cleaning and/or where they require a more detailed knowledge of cleaning and sanitation processes to carry out cleaning responsibilities. This unit applies to both wet and dry cleaning methods.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for cleaning	<p>1.1.Cleaning/sanitising agents and services are available and ready for use</p> <p>1.2.Equipment is cleared of product and/or packaging consumables in preparation for cleaning</p> <p>1.3.Equipment is rendered safe to clean</p>
2. Clean and sanitise equipment to meet workplace requirements	<p>2.1.Equipment is cleaned and sanitised according to workplace procedure and requirements</p> <p>2.2.Equipment is inspected to confirm operating condition and cleanliness</p> <p>2.3.Unacceptable equipment condition is identified and reported according to workplace procedures</p> <p>2.4.Cleaning equipment and chemicals are stored according to workplace procedure</p> <p>2.5.Waste from cleaning process is disposed of according to workplace procedures</p> <p>2.6.Work is conducted in accordance with workplace environmental guidelines</p> <p>2.7.Equipment is restored to operating order</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- access workplace information, such as the cleaning schedule to identify cleaning requirements
- select, fit and use personal protective clothing and/or equipment
- confirm supply of necessary cleaning and sanitising equipment and services
- select and prepare cleaners and sanitisers as required according to workplace procedures
- prepare equipment for cleaning, such as rendering equipment safe to clean, clearing product and waste materials, covering motors and instrumentation where steam or water hoses are used, and simple dismantling of equipment parts
- advise any affected work areas/operators of cleaning progress to coordinate timely completion with minimal disruption to production
- clean and sanitise equipment as required according to workplace procedures and cleaning schedule
- return equipment to operating order (this may involve basic assembly of equipment parts)
- inspect equipment to identify equipment condition and cleanliness
- locate emergency stop functions on equipment
- report and/or correct unacceptable equipment condition
- maintain housekeeping standards
- prepare cleaners and sanitisers as required
- store cleaners, sanitisers and related equipment as required
- carry out relevant checks and inspections
- maintain work area to meet housekeeping standards
- conduct routine maintenance according to enterprise procedures
- take samples and conduct tests according to enterprise procedures
- record cleaning and sanitation information according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- the purpose of cleaning and sanitation and importance in maintaining food safety
- functions of cleaners, sanitisers and related equipment

REQUIRED SKILLS AND KNOWLEDGE

- safe work procedures, including appropriate signage of cleaning activities, safe handling and storage of cleaners and sanitisers used, safety when using cleaning methods, such as hot water and steam hoses, and status and purpose of safety guards
- purpose and limitations of protective clothing and equipment
- cleaning and sanitation requirements relating to work responsibilities, including the need for different levels of cleaning where relevant
- procedures for preparing cleaners and sanitizers as required
- cleaning method/s to be followed relating to work responsibilities
- other work areas/operators who need to be consulted/advised on timing of cleaning
- methods used to render equipment safe to clean, including understanding the status and purpose of equipment guards, relevant lock out/tagout and isolation procedures and related equipment settings for both cleaning and operating as required
- procedures for conducting cleaning and sanitising
- types of waste generated by the cleaning process and related collection, treatment and disposal requirements
- potential environmental impact of incorrect waste handling
- inspection, cleaning and storage requirements of cleaning equipment used
- inspection points and methods for confirming the effectiveness of cleaning and sanitation, including visual inspection, and where required, recording of cleaning conducted
- inspection requirements to confirm equipment condition, including acceptable equipment condition, ability to identify faulty or unacceptable equipment and take required corrective action
- recording requirements and responsibilities
- routine maintenance procedures where relevant
- sampling methods and test procedures where relevant

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

EVIDENCE GUIDE	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • prepare equipment for cleaning • prepare and use chemicals according to safe work requirements • clean and sanitise equipment to meet work standards • monitor cleaning and report or address any non-compliances • dispose of waste according to environmental guidelines • complete required documentation • apply safe work practices and identify OHS hazards and controls • apply food safety procedures.
<p>Context of and specific resources for assessment</p>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • cleaning procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements • personal protective clothing and equipment • cleaning schedule and related procedures, including OHS advice • equipment/items to be cleaned • chemicals, cleaning equipment and services as required • MSDS where appropriate • housekeeping standards and procedures • cleaning/sanitising information recording system and procedures • advice on environmental management issues relevant to work responsibilities.
<p>Method of assessment</p>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> • FDFOP2011A Conduct routine maintenance • FDFOP2013A Apply sampling procedures • MSL973001A Perform basic tests.
<p>Guidance information for assessment</p>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where</p>

EVIDENCE GUIDE

	possible, over a number of assessment activities.
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Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Policies and procedures

Work is carried out in accordance with company procedures, licensing requirements, legislative requirements, and industrial awards and agreements. When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply and reference to food safety is replaced by GMP

Workplace information

Workplace information may include:

- standard operating procedures (SOPs)
- specifications
- production and cleaning schedules
- labels and codes
- safety signs and symbols
- materials safety data sheets (MSDS)
- standard forms
- written or verbal instruction

Cleaning and sanitising chemicals

Cleaning and sanitising chemicals may be:

- pre-mixed or manually mixed

Preparing/restoring equipment to operating order

Preparing/restoring equipment to operating order may involve:

- simple dismantling and reassembling of equipment parts
- basic isolation
- covering of motors and instrumentation

Services

Services may include:

RANGE STATEMENT	
	<ul style="list-style-type: none"> • power • water • steam • compressed and instrumentation air
Inspecting cleaning effectiveness	Inspecting cleaning effectiveness typically involves: <ul style="list-style-type: none"> • carrying out a visual inspection

Unit Sector(s)

Unit sector	Operational
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

FDFO2012A Maintain food safety when loading, unloading and transporting food

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to load and transport temperature-sensitive ingredients and products.
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Application of the Unit

Application of the unit	<p>This unit describes the food safety aspects of loading and transporting food where the transport operator does not have direct physical contact with food. Where food is directly handled by the transport operator, the relevant food handling unit also applies.</p> <p>This unit does not address competencies related to vehicle inspection and operation.</p> <p>This unit is based on and equivalent to the guideline food safety unit GFSTFA Transport food.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to transport food	<p>1.1. Food storage vehicles and containers/receptacles are appropriate for use</p> <p>1.2. Food storage vehicles and containers/receptacles are prepared for use</p> <p>1.3. Food is loaded and secured as required to meet transportation and temperature control requirements</p> <p>1.4. Hand washing and disinfecting procedures are followed to meet workplace requirements</p> <p>1.5. Work is conducted in accordance with workplace environmental guidelines</p>
2. Load, unload and transport food safely	<p>2.1. Food safety control measures are monitored to ensure that food safety is maintained during transport</p> <p>2.2. Where food safety control requirements are not met, the incident is promptly reported and corrective action is taken</p> <p>2.3. Food is unloaded as required according to transportation and temperature control requirements</p> <p>2.4. Food safety information is recorded to meet workplace requirements</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- access workplace information to determine food handling and transport requirements
- select, fit and use personal protective clothing and/or equipment
- confirm that the vehicle and associated equipment are appropriate and ready for use, including confirming that vehicle type is capable of maintaining the required temperature range for product
- prepare transport containers (this will vary depending on the type of food and transport method), such as checking cleaning records, and where required, confirming product compatibility to ascertain that appropriate level of cleaning has occurred
- prepare the storage/holding environment as required, including confirming that temperature parameters for the loading and unloading areas are met
- follow procedures to load/unload food to ensure that materials/product is loaded/unloaded in correct sequence and configuration and that food cannot become contaminated by being located in proximity to other food or non-food items that can cause contamination (osmosis)
- monitor temperature parameters and related food safety control points before, during and after transporting food and record information in the required format
- take appropriate corrective action in response to failure to meet temperature parameters or other food safety requirements as required by workplace procedures
- clean and sanitise food containers according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- food safety control points in the loading/unloading and transportation of food materials and product and related methods of control
- characteristics of food transported and related transport environment requirements
- micro-biological, physical and chemical hazards that can occur when loading, transporting and unloading food, appropriate to nature and method of food transported, including the types of hazards likely to occur, the conditions under which they occur, and possible consequences
- methods and procedures used to control food safety hazards (this depends on the

REQUIRED SKILLS AND KNOWLEDGE

type of controls and equipment used), including the purpose and operation of equipment, procedures in place to maintain food safety and workplace records, such as temperature control charts and cleaning and sanitation records

- procedures used to confirm that transportation and related food safety equipment is appropriate for use and operational, such as equipment capacity to maintain a given temperature environment appropriate to the food product
- cleaning and sanitation requirements for food containers where relevant
- where contamination by osmosis is a possibility, the potential for cross-contamination resulting from location in proximity to other food or non-food items that are transported

Evidence Guide**EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- ensure readiness of transport in accordance with product requirements
- identify risks associated with transporting food products
- identify and apply control measures for ensuring safety of food
- load and unload goods according to requirements
- identify and act on non-compliances
- complete workplace records as required
- apply safe work practices and identify OHS hazards and controls
- apply food safety procedures.

Context of and specific resources for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

- loading/unloading and transport advice/schedules

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • food safety information (this may be included in a food safety plan and/or integrated into work procedures) • work procedures relevant to loading/unloading and transportation, including advice on required temperature parameters to be maintained • workplace information, such as temperature charts and cleaning records as appropriate • food materials and product to be loaded/unloaded and transported • documentation and recording requirements and procedures .
Method of assessment	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out according to company policies and procedures, licensing requirements, legislative requirements and industrial awards and agreements. When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply and reference to food safety is replaced by GMP
Workplace information	Workplace information may include:

RANGE STATEMENT	
	<ul style="list-style-type: none"> • standard operating procedures (SOPs) • food safety program • product handling specifications • transport schedules and instructions • transport vehicle manufacturers' advice • standard forms and reports
Transport vehicles	Transport vehicles are appropriate for the transportation of food and capable of maintaining the required environment for the food type transported
Food safety controls	Food safety controls refer to the methods used to control food safety hazards. Control methods, requirements and record keeping are specified in workplace food safety procedures which typically form part of a workplace food safety program
Safe food transport parameters	Safe food transport parameters depend on the type of food transported. Industry guidelines and codes, such as Cold Chain guidelines should be used as a basis for setting these parameters where available
Confirming readiness for use of food transport vehicle	<p>Confirming readiness for use of food transport vehicle and containers/receptacles can include:</p> <ul style="list-style-type: none"> • confirming that the vehicle is in good operating order and that containers/receptacles used to store food meet the relevant cleaning and sanitation requirements <p>It may also include:</p> <ul style="list-style-type: none"> • bringing the food handling area and storage container/receptacle to within the required temperature range before loading/unloading and confirming that equipment required to maintain temperature is operational
Food safety incidents	A food safety incident is a situation where the safe limits or parameters identified by the food safety program are not met

Unit Sector(s)

Unit sector	Operational
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

FDFOP2013A Apply sampling procedures

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to understand the requirements of sampling plans, and to collect and transfer samples to retain sample integrity.
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Application of the Unit

Application of the unit	<p>This unit has application in a food production environment. Operators requiring this competency would typically be required to follow specific sampling procedures, such as aseptic sampling.</p> <p>When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply and reference to food safety is replaced by GMP.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for sampling	<p>1.1.Sampling requirements are identified in accordance with the sampling plan</p> <p>1.2.Sampling equipment, containers and labels are prepared</p>
2. Collect samples	<p>2.1.Samples are collected according to sampling procedures and the requirements of the sampling plan</p> <p>2.2.Samples are handled and prepared to preserve sample and source integrity</p> <p>2.3.Defects or abnormalities in source material and/or sample are identified and reported</p> <p>2.4.Sample information is recorded according to workplace sample recording requirements</p> <p>2.5.The work area is maintained according to housekeeping standards</p> <p>2.6.Work is conducted in accordance with workplace environmental guidelines</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- access and interpret sampling plan to identify sampling requirements
- select, fit and use personal protective clothing and/or equipment
- prepare for sampling to ensure required tools, containers and labels are available
- follow sampling procedures and the sampling plan to collect samples from the points, in the quantities and at the times specified
- identify atypical source materials and/or samples and take corrective action, such as reporting abnormalities, repeating sample collection and/or following intensive sampling schedules as required
- complete sample records according to workplace requirements, such as labelling samples as required
- transfer samples for testing
- maintain work area to meet housekeeping standards
- prepare samples according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- basic sampling principles, including the importance of following the sampling plan to obtain representative sampling reflecting characteristics of source material, the sample characteristics and related preservation, handling and storage requirements, and the labelling system purpose and requirements
- tests to be conducted on samples and related handling and preparation requirements and responsibilities
- characteristics of materials sampled and common contaminants and related conditions under which contamination is likely to occur
- sampling techniques relevant to samples collected, such as sterilisation methods and procedures
- the relationship between sampling, testing and production processes, including different sampling regimes that may apply in response to non-standard conditions or after corrective action is taken to adjust production outputs
- procedures and responsibility for reporting and recording sampling information, such as legislative requirements
- procedures for preparing samples where relevant

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	<p>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • conduct pre-start checks on equipment used for collecting and handling samples • collect, handle and store samples according to sampling requirements and standards • take corrective action in response to typical defects and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • apply food safety procedures.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • sampling plan • documentation, including specifications, work instruction and other advice on sampling requirements • recording and reporting system • sampling instrumentation and containers as required • product/source material to be sampled.
Method of assessment	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Example could be:</p> <ul style="list-style-type: none"> • MSL973001A Perform basic tests
Guidance information for assessment	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where</p>

EVIDENCE GUIDE

	possible, over a number of assessment activities.
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Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Policies and procedures

Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements

Workplace information

Workplace information may include:

- standard operating procedures (SOPs)
- specifications
- production schedules and instructions
- manufacturers' advice
- sampling plans

Sampling requirements

Sampling requirements include:

- sampling under standard conditions
- sampling after processes are adjusted in response to variation or non-conformance

Sampling

Sampling typically occurs at a number of points and using a range of techniques

Maintenance of sample integrity

Maintenance of sample integrity may be achieved by:

- use of appropriate personal protective clothing
- use of clean sampling tools and containers (sterilised tools/containers for aseptic sampling)
- temperature control
- addition of preservatives as required

RANGE STATEMENT

Sampling techniques	Sampling techniques may include: <ul style="list-style-type: none"> • sub-sampling
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Unit Sector(s)

Unit sector	Operational
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

FDOP2016A Work in a food handling area for non-food handlers

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to conduct work in a food handling area where the work does not involve direct food contact.
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Application of the Unit

Application of the unit	<p>Typical applications for this unit include stores/warehousing, cleaning and maintenance workers. This unit is not appropriate for a person who has direct contact with food and/or raw materials or ingredients. Where this is a requirement, refer to relevant core food safety units.</p> <p>This unit is based on and equivalent to the guideline food safety unit GFSWFHAA Carry out work in a food handling area.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Maintain food safety while working in a food handling area	<p>1.1. Food safety requirements related to work tasks are identified and followed</p> <p>1.2. Work responsibilities are carried out so that the safety of food is maintained</p> <p>1.3. Procedures or practices which are not consistent with workplace food safety program are identified and reported</p>
2. Maintain food handling area in clean and orderly state	<p>2.1. Equipment and the food handling area meet the cleaning and sanitation requirements of workplace food safety program</p> <p>2.2. Work is conducted in accordance with workplace environmental guidelines</p> <p>2.3. Waste is collected and disposed of according to workplace procedures</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- access and apply workplace information on food safety policies and procedures relating to own work
- fit and use appropriate personal protective clothing and equipment as required by work tasks to meet food business requirements
- maintain personal conduct consistent with workplace requirements
- check own work area to identify food safety hazards
- carry out work responsibilities to ensure that food safety is not compromised
- take necessary precautions when moving between or around the workplace and/or from one task to another to minimise the risk of contamination
- recognise and report situations or procedures that could compromise food safety according to workplace procedure, including following procedures in own work and related work area to report to the appropriate personnel, in required detail and in a timely manner
- take corrective or preventative action within level of responsibility
- report health conditions and illness as required by workplace food safety procedures
- sort and dispose of waste as required by work responsibility according to workplace procedure
- maintain housekeeping standards in work area
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- food safety requirements related to own work as determined by the workplace
- sources of advice on food safety issues and responsibilities in the workplace
- personal hygiene practices and clothing and footwear requirements associated with working in and moving in and between food handling areas and moving between food handling and non food-handling areas
- suitable standard for materials and equipment used in the food handling area, including materials that are unsuitable for use, such as breakable or dirty equipment/materials
- methods and procedures to be followed when carrying out work responsibilities in a food handling area to ensure that food safety is not compromised (this will depend on the nature of work responsibilities and food safety requirements as

REQUIRED SKILLS AND KNOWLEDGE

- specified by the workplace)
- the types of contamination that can occur as a result of work activities, and procedures used to prevent these types of contamination from occurring
 - cleaning and sanitation requirements and responsibilities, including cleaning methods appropriate to a food handling environment and those used in the specific food handling area
 - waste collection, recycling and handling procedures
 - housekeeping standards to be maintained in the work area

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- identify food handling procedures and food safety issues for work
- apply food safety procedures when handling food products
- identify and act on non-conformances
- ensure cleaning standards are met
- follow environmental and waste management procedures.

Context of and specific resources for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

- food safety policies and procedures relevant to work function
- work procedures, including procedures for entering and exiting food handling areas
- work process and related services/resources
- work area and related equipment to undertake work function

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> waste collection, treatment, recycling and/or disposal methods monitoring and reporting system.
Method of assessment	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with company policies and procedures, regulatory and licensing requirements, legislative requirements, site licences and industrial awards and agreements
Workplace information	<p>Workplace information may include:</p> <ul style="list-style-type: none"> standard operating procedures (SOPs) advice on food safety requirements related to work function standard forms written or verbal instructions
Food handling area	Food handling area can refer to any work area where receiving, handling and inspecting, preparing, processing, packaging, storing and/or despatching occur
Examples of contamination that	Examples of contamination that can result from

RANGE STATEMENT	
can result from work activities	<p>work activities include:</p> <ul style="list-style-type: none"> chemical contamination which could be caused by lubricants, resins and cleaning and sanitation chemicals physical contamination which could be caused by metal, glass, plastic and cloths
Personal hygiene, clothing and footwear and requirements	<p>Personal hygiene, clothing and footwear and requirements to report health conditions or illness must meet workplace requirements and procedures. At a minimum such procedures must ensure that any person in a food premises does not contaminate food, does not have unnecessary contact with ready-to-eat food and does not spit, smoke or use tobacco or similar in a food handling area. Refer to Food Safety Standard 3.2.2, Clause 17:3 and relevant state and territory regulations/legislation</p>

Unit Sector(s)

Unit sector	Operational
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Competency field

Competency field	
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Co-requisite units

Co-requisite units	

FDFOP2023A Operate a packaging process

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a packaging process or sub-system.
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Application of the Unit

Application of the unit	<p>This unit has application in a food processing packing environment. It typically targets the worker responsible for applying basic operating principles to the operation and monitoring of a packing process and associated equipment. This unit is generic and should be customised for a given process. It should only be selected where no specific packaging unit is available.</p> <p>A packaging process may relate to primary and/or secondary packaging activities. It typically requires the operation of a series of related items of equipment to achieve the required outcome.</p> <p>Where a single item of packaging equipment is operated, refer to FDFOP1005A Operate basic equipment.</p> <p>When batch or product changeover procedures are part of this work process, the procedures should be used to customise the application of this unit. Where more detailed changeovers are carried out, FDFOP2011A Conduct routine maintenance, should be considered.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare the equipment and process for operation	<p>1.1.Packaging components/consumables, materials and items to be packaged are confirmed and available to meet operating requirements</p> <p>1.2.Cleaning and maintenance requirements and status are identified and confirmed</p> <p>1.3.Machine components and related attachments are fitted and adjusted to meet operating requirements</p> <p>1.4.Operating parameters are entered as required to meet safety and production requirements</p> <p>1.5.Materials, product and packaging components/consumables are loaded or positioned as required to meet packaging requirements</p> <p>1.6.Equipment performance is checked and adjusted as required</p>

ELEMENT	PERFORMANCE CRITERIA
	1.7.Pre-start checks are carried out as required by workplace requirements
2. Operate and monitor the process	2.1.The process is started and operated according to workplace procedures 2.2.Equipment is monitored to identify variation in operating conditions 2.3.Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements 2.4.The process is monitored to confirm that specifications are met 2.5.Out-of-specification process outcomes are identified, rectified and/or reported to maintain the process within specification 2.6.The work area is maintained according to housekeeping standards 2.7.Work is conducted in accordance with workplace environmental guidelines 2.8.Workplace records are maintained according to workplace recording requirements
3. Shut down the process	3.1.The appropriate shutdown procedure is identified 3.2.The process is shut down according to workplace procedures 3.3.Maintenance requirements are identified and reported according to workplace reporting requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- access workplace information to identify packaging requirements
- select, fit and use personal protective clothing and/or equipment
- confirm supply of necessary packaging components/consumables, materials and services
- conduct pre-start checks, such as inspecting equipment condition to identify any

REQUIRED SKILLS AND KNOWLEDGE

signs of wear, setting coders and printers, selecting appropriate equipment settings and/or related parameters, cancelling isolation or lockouts as required, confirming that equipment is clean and correctly configured for packaging requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been completed, and confirming that all safety guards are in place and operational

- start, operate, monitor and adjust packaging equipment to achieve required outcomes., such as packaging components/consumables and/or product, and monitoring control points (e.g. weights, codes, placement, glue temperatures, alignment and appearance, configuration and seal integrity) as required to confirm process remains within specification
- monitor supply and flow of materials to and from the process
- take corrective action in response to out-of-specification results
- respond to and/or report equipment failure within level of responsibility
- locate emergency stop functions on equipment
- follow isolation and lock out/tag out procedures as required to take packaging equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- demonstrate batch/process changeovers
- complete workplace records as required
- maintain work area to meet housekeeping standards
- use process control systems according to enterprise procedures
- integrity testing of packaging according to enterprise procedures
- carry out routine maintenance according to enterprise procedures
- clean and sanitise equipment according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- purpose and basic principles of the packaging process, including the purpose and characteristics required of packaging materials used and the principles of the packaging process used (where methods involve vacuum or map packaging, it includes an understanding of the effect of modified atmosphere on product shelf-life)
- product and packaging coding requirements and related legal requirements, including product weight
- basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available

REQUIRED SKILLS AND KNOWLEDGE

- the flow of processes supplying the packaging process and the effect of outputs on downstream processes
- quality characteristics required of the packaging process, such as seal integrity requirements
- effect of variation in inputs, such as packaging components/consumables, materials and/or services, on process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including restart procedures following a crash or jam up
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the packaging process, such as visual inspecting, and measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks related to stages in the packaging process and related control measures
- common causes of variation and corrective action required
- occupational health and safety (OHS) hazards and controls
- requirements of different shutdowns as appropriate to the packaging process, including emergency and routine shutdowns and procedures to follow in the event of a power outage, and conducting basic equipment referencing where required
- product/packaging changeover procedures and responsibilities
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures where relevant
- packaging integrity testing where relevant
- cleaning and sanitation procedures where relevant

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

EVIDENCE GUIDE	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to: <ul style="list-style-type: none"> • conduct pre-start checks on machinery used for packing • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply food safety procedures.
Context of and specific resources for assessment	Assessment must occur in a real or simulated workplace where the assessee has access to: <ul style="list-style-type: none"> • personal protective clothing and equipment • work procedures, including advice on safe work practices, food safety, quality and environmental requirements • information on equipment capacity and operating parameters • specifications, control points and operating parameters • packaging and related equipment and services • materials to be packaged and packaging components/consumables as required • sampling schedules and test procedures and equipment as required • documentation and recording requirements and procedures • cleaning procedures, materials and equipment as required.
Method of assessment	This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be: <ul style="list-style-type: none"> • FDFOP2004A Clean and sanitise equipment

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • FDFOP2011A Conduct routine maintenance • FDFOP2013A Apply sampling procedures • FDFOP2030A Operate a process control interface • MSL973001A Perform basic tests.
Guidance information for assessment	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes:</p> <ul style="list-style-type: none"> • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity <p>When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply in place of the Australian Food Standards Code and reference to food safety is replaced by GMP</p>
Workplace information	Workplace information may include:

RANGE STATEMENT	
	<ul style="list-style-type: none"> • standard operating procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Typical equipment	<p>Typical equipment that may form a packaging sub-system includes:</p> <ul style="list-style-type: none"> • conveyor systems • filling • sealing • wrapping • thermo-form equipment • case packers • bundlers • ink jet coders • labellers • palletisers • shrink wrappers • strappers
Packaging	<p>Packaging may include:</p> <ul style="list-style-type: none"> • vacuum packing • modified atmosphere packaging (MAP) • blister packaging or over wrapping
Operation of equipment and processes	<p>Operation of equipment and processes may require:</p> <ul style="list-style-type: none"> • the use of process control panels and systems
Shutdown procedures	<p>Shutdown procedures may include:</p> <ul style="list-style-type: none"> • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Unit Sector(s)

Unit sector	Operational
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

FDFOP2038A Operate a grinding process

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down processes, such as grinding, rolling and breaking to reduce the particle size of grains and pulses.
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Application of the Unit

Application of the unit	<p>This unit has application in a food production environment. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of grinding equipment and processes.</p> <p>When batch or product changeover procedures are part of this work process, the procedures should be used to customise the application of this unit. Where more detailed changeovers are carried out, FDFOP2011A Conduct routine maintenance, should be considered.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare the grinding equipment and process for operation	<p>1.1. Materials are confirmed and available to meet production requirements</p> <p>1.2. Cleaning and maintenance requirements and status are identified and confirmed</p> <p>1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements</p> <p>1.4. Processing/operating parameters are entered as required to meet safety and production requirements</p> <p>1.5. Equipment performance is checked and adjusted as required</p> <p>1.6. Pre-start checks are carried out as required by workplace requirements</p>
2. Operate and monitor the grinding process	<p>2.1. The process is started and operated according to workplace procedures</p> <p>2.2. Equipment is monitored to identify variation in operating conditions</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements</p> <p>2.4. The process is monitored to confirm that specifications are met</p>

ELEMENT	PERFORMANCE CRITERIA
	2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification 2.6. The work area is maintained according to housekeeping standards 2.7. Work is conducted according to environmental standards 2.8. Workplace records are maintained according to workplace recording requirements
3. Shut down the grinding process	3.1. The appropriate shutdown procedure is identified 3.2. The process is shut down according to workplace procedures 3.3. Maintenance requirements are identified and reported

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- access workplace information to identify processing requirements
- select, fit and use personal protective clothing and/or equipment
- confirm supply of necessary materials and services to the grinding process
- conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational
- operate stockfeed control panel to transfer and grind product
- monitor and adjust the grinding process and equipment operation to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, and running adjustments to hammer mills and roller mills
- monitor supply and flow of materials to and from the grinding process
- take corrective action in response to out-of-specification results
- respond to and/or report equipment failure within level of responsibility

REQUIRED SKILLS AND KNOWLEDGE

- locate emergency stop functions on equipment
- follow isolation and lock out/tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- complete workplace records as required
- demonstrate batch/product changeovers
- sort, collect, treat, recycle or dispose of waste
- maintain work area to meet housekeeping standards
- collect samples and conduct tests according to enterprise procedures
- conduct routine maintenance according to enterprise procedures
- clean and sanitise equipment according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- purpose and basic principles of the grinding process, including the characteristics of materials, which can be reduced to a suitable form for product such as stockfeed
- basic operating principles of equipment, such as main equipment components, bulk materials transfer systems and equipment, dust collection equipment, grinding equipment operating capacities and applications, and the purpose and location of magnets, sensors and related feedback instrumentation
- services required and action to take if services are not available
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- the flow of the grinding process and the effect of product output on downstream processes
- quality characteristics and uses of grinding process outputs
- effect of the grinding process on the end product
- effect of raw material characteristics on grinding process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- techniques used to monitor the production process, such as inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the grinding process and related control measures

REQUIRED SKILLS AND KNOWLEDGE

- common causes of variation and corrective action required
- operational health and safety (OHS) hazards and controls, including the risk of dust explosion and an understanding of the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- product/process changeover procedures and responsibilities
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- sampling and testing associated with process monitoring and control where relevant
- routine maintenance procedures where relevant
- cleaning and sanitation procedures where relevant

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- conduct pre-start checks on machinery used for grinding
- start, operate, monitor and adjust process equipment to achieve required quality outcomes
- take corrective action in response to typical faults and inconsistencies
- complete workplace records as required
- apply safe work practices and identify OHS hazards

EVIDENCE GUIDE	
	<p>and controls</p> <ul style="list-style-type: none"> • safely shut down equipment • apply food safety procedures to work practices.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment • work procedures including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, production schedules, batch/recipe instructions • specifications, control points and processing parameters • production schedule/batch instructions • information on equipment capacity and operating parameters • grinding and related equipment and services • stock required for the grinding process • sampling schedules and test procedures and equipment as required • documentation and recording requirements and procedures • cleaning procedures, materials and equipment as required.
Method of assessment	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> • FDFOP2004A Clean and sanitise equipment • FDFOP2011A Conduct routine maintenance • FDFOP2013A Apply sampling procedures • FDFOP2030A Operate a process control interface • MSL973001A Perform basic tests.
Guidance information for assessment	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes:</p> <ul style="list-style-type: none"> • the Food Standard Code, including the labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	<p>Workplace information may include:</p> <ul style="list-style-type: none"> • standard operating procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • conveyors/elevators • augers • magnets • fans • sieves • hammer mills • roller mills • breaker bars • cyclones
Materials	<p>Materials include:</p> <ul style="list-style-type: none"> • grains

RANGE STATEMENT	
	<ul style="list-style-type: none"> • pulses Pulses are legumes typically include: <ul style="list-style-type: none"> • peas • beans • lentils
Shutdown procedures	Shutdown procedures may include: <ul style="list-style-type: none"> • cleaning(in some cases cleaning may be carried out by a dedicated cleaning crew)
Services	Services may need to be confirmed. These depend on the nature of the process. Typical examples include: <ul style="list-style-type: none"> • power • steam • water • vacuum • compressed and instrumentation air

Unit Sector(s)

Unit sector	Operational
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

FDFTEC3001A Participate in a HACCP team

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to participate in the development and/or review of a HACCP-based food safety program under direction.
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Application of the Unit

Application of the unit	<p>This unit is appropriate where the operator requires a detailed understanding of the steps and techniques used to develop and review a HACCP-based food safety program.</p> <p>This unit can be aligned at either AQF 3 or 4. When aligned at AQF 3 the person would typically participate in the development of the food safety program as part of a group. The scope of contribution would typically be limited to their immediate work area. When this unit is applied at AQF 4 the person may take a lead role in facilitating the development of the food safety program and would apply an understanding of food safety across more diverse operations or work areas.</p> <p>This unit is based on and achieves part of the guideline food safety unit GFSDFSPA Develop food safety programs.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		
	FDFFS2001A	Implement the food safety program and procedures

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to develop and/or review a food safety program	<p>1.1.Roles and responsibilities for participating in, developing or reviewing a food safety program are identified</p> <p>1.2.The scope of the food safety program is identified</p>
2. Identify and/or review food safety hazards	<p>2.1.Processes to be covered by the food safety program are identified and steps within each process are described</p> <p>2.2.Food safety hazards that are reasonably expected to occur are identified for each process</p> <p>2.3.Handling methods, processing techniques and existing support programs used in the workplace are identified</p>
3. Establish and/or	3.1.Acceptable methods of control are established for

ELEMENT	PERFORMANCE CRITERIA
review methods to monitor and control food safety hazards	<p>each food safety hazard that is reasonably expected to occur</p> <p>3.2. Control methods are validated</p> <p>3.3. Procedures for taking preventative action are established</p> <p>3.4. Appropriate methods for monitoring that processes remain within control are established</p> <p>3.5. Required corrective action to respond to situations where hazards are not effectively controlled is established</p> <p>3.6. Work is conducted in accordance with workplace environmental guidelines</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to:

- identify personal roles and responsibilities for participating in the development or review of a food safety program
- identify processes and steps to be covered
- identify hazards that are reasonably expected to occur and establish appropriate methods of control, such as participating in validating existing control methods and where there is no adequate control method in place, establishing an appropriate method
- establish or review procedures for implementing preventative action, such as revision of materials, processes and/or food handling procedures, and where required, the revision of workplace practices and documentation, such as specifications, operating procedures and approved supplier programs
- describe the appropriate monitoring requirements for each food safety hazard, including the method or procedure to be followed, the frequency and timing, the person responsible, and the information to be recorded (procedures to be followed would typically be specified in the form of a standard operating procedure or work instruction)
- describe corrective action requirements in the event that acceptable limits or

REQUIRED SKILLS AND KNOWLEDGE

requirements of support programs are not met

- develop or review documentation relating to the design and maintenance of the food safety program, such as flow diagrams, hazard analysis charts and tables, support program requirements, data analysis reports, corrective action reports and verification reports
- develop or review documentation to communicate food safety responsibilities, such as standard operating procedures (SOPs), processing parameters and recording devices (e.g. log sheets)
- communicate food safety responsibilities within level of responsibility using techniques and presentation styles appropriate to the audience
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge

Knowledge of:

- the purpose and intent of food safety legislation
- purpose and responsibilities for maintaining records as required by legislation and workplace procedures
- roles and responsibilities for development and maintenance of the food safety program, including roles of internal and external auditors and of authorised officers
- techniques for applying HACCP-based principles, including techniques for identifying hazards, assessing the likelihood of occurrence, determining acceptable methods of control, monitoring and recording requirements for each control point, identifying corrective action if controls are not met, and developing system review procedures
- techniques used to map operations and analyse food safety requirements, such as preparation of flow charts, hazard analysis charts and tables, and data analysis reports
- raw materials, ingredient and finished product composition and characteristics, and related handling and storage requirements
- food processing methods used in the workplace or work area and their effect on food safety
- sources of technical expertise on food safety requirements
- the role of consultation in the development, implementation and ongoing maintenance of the food safety program
- documentation and recording requirements to support communication and monitoring of the food safety program, including procedures for maintaining and updating relevant documents, such as operating procedures
- main types of food safety hazards/contamination likely to occur given the type of

REQUIRED SKILLS AND KNOWLEDGE

- product and processing methods used
- conditions required for bacterial food poisoning to occur, such as water activity, pH, composition, time and temperature as relevant to food handled
- acceptable control methods for the hazards identified and required corrective action when control requirements are not met
- typical support programs, such as cleaning schedules, pest control, stock rotation, product traceability and personal hygiene, and how they can be used as part of a food safety program
- acceptable control methods for the hazards identified and required corrective action when control requirements are not met
- validation and verification processes and techniques and responsibilities

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- identify components and parameters of a food safety program
- identify food safety hazards in production processes
- establish and validate control standards and methods for each hazard
- establish procedures for unpredicted hazards
- communicate and document hazards and control procedures
- complete workplace records
- apply safe work practices and identify occupational health and safety (OHS) hazards and controls
- apply food safety procedures.

Context of and specific resources for

Assessment must occur in a real or simulated workplace

EVIDENCE GUIDE	
assessment	<p>where the assessee has access to:</p> <ul style="list-style-type: none"> • workplace food safety program documentation • advice on quality and food safety legislation • procedures for developing or modifying specifications and other advice on food safety requirements • procedures for developing or modifying documentation, such as work instructions and procedures, log sheets and other recording requirements • review/audit arrangements • consultative mechanisms • communication systems • training system • reporting/recording system.
Method of assessment	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Food safety programs	<p>A food safety program is a written document that specifies how a business will control all food safety hazards that are reasonably expected to occur in the food business. The food safety program must provide for the systematic</p>

RANGE STATEMENT	
	<p>monitoring of the controls as well as appropriate corrective action if a hazard is found not to be under control. Records must be kept to demonstrate action in relation to, or in compliance with, the food safety program. A food safety program may be developed as a stand-alone program or may be integrated with the quality program in a workplace</p>
Methods used to control hazards	<p>Methods used to control hazards include:</p> <ul style="list-style-type: none"> • both support programs and specific hazard control limits or requirements <p>Typical examples of support programs include:</p> <ul style="list-style-type: none"> • product recall • cleaning schedules • pest control programs • personal hygiene practices • calibration procedures and related operating procedures
Food safety hazards	<p>Food safety hazards include:</p> <ul style="list-style-type: none"> • microbiological • chemical • physical hazards
Validation	<p>Validation refers to:</p> <ul style="list-style-type: none"> • the use of objective evidence in order to prove that materials, processes, procedures or equipment used are capable of delivering the intended result
Verification	<p>Verification refers to:</p> <ul style="list-style-type: none"> • reviewing all aspects of the food safety program and related records to determine compliance with and adequacy of the food safety program <p>At a minimum, food safety programs must be verified annually</p>
Scope of the HACCP based plans	<p>The scope of the HACCP-based plan depends on workplace requirements and may extend outside the direct area of responsibility of the team participants</p>

Unit Sector(s)

Unit sector	Technical
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

FDFWGG2001A Bench graft vines

Modification History

This unit supersedes and is equivalent to FDFWGGBGVB Bench graft vines.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. It covers the skills and knowledge required to select appropriate vine material and bench graft vines.
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Application of the Unit

Application of the unit	This unit applies to wine grape growing and covers the bench grafting of vines. The unit includes the selection of appropriate vine material, preparation of cuttings, grafting and post-grafting treatment and storage.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to bench graft vines	1.1 Materials are confirmed as available to meet grafting requirements 1.2 Cuttings are selected and prepared for grafting 1.3 Equipment is checked to confirm readiness for use 1.4 Equipment is set to meet grafting needs as required
2. Bench graft vines	2.1 Cuttings are disbudded according to workplace procedures 2.2 Cuttings are bench grafted according to workplace procedures 2.3 Graft is treated and/or taped according to workplace procedures 2.4 Grafting process and equipment are monitored to ensure results are maintained within specifications 2.5 Out-of-specification process and equipment performance are identified, rectified and/or reported
3. Complete bench grafting activities	3.1 Equipment is shut down, cleaned and maintained as required 3.2 Grafted vines are packed, labelled and stored according to instructions 3.3 Waste generated by both the process and cleaning procedures is collected, treated and disposed of according to workplace procedures 3.4 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify grafting requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- liaise with other work areas and customers
- confirm supply of necessary materials
- select appropriate vine material for grafting. This may include consideration of:
 - variety and clone
 - matching cambium
 - matching bevels and sizes
 - wood diameters
 - customer or workplace requirements
- prepare vine material for grafting. This may include:
 - removal from cold storage
 - soaking
 - heat treatment
 - disbudding
 - hydration
 - grading
- select, prepare and set equipment as required
- operate equipment
- disbud vines according to instructions
- bench graft vines to match specifications
- treat vines after grafting. This may include:
 - packing into callusing boxes
 - hormonal treatment
 - careful handling
 - following hygiene procedures
- monitor the process and equipment operation to identify out-of-specification results or non-compliance. This may include monitoring:
 - tightness of graft union
 - progress (e.g. number per day)
- take corrective action in response to out-of-specification results or non-compliance
- report and/or record corrective action as required
- sort, collect, treat, recycle or dispose of waste as required
- maintain work area to meet housekeeping standards. This should include hygiene requirements to prevent cross-infection

- clean equipment as required
- pack, label and store grafted vines. This may include consideration of:
 - cold room layout
 - cold room temperature variations
 - customer requirements
 - storage time requirements
 - care of vine material (e.g. moisture and disease)
- identify, rectify and/or report environmental non-compliance
- conduct routine maintenance of equipment according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- purpose of grafting and various methods of budding and grafting
- purpose and methods of disbudding
- criteria for successful grafting
- importance of selection and use of rootstock and Vinifera
- advantages of using clonal and registered vine improvement rootstock material
- criteria for selecting parent vines for scion material
- procedures and optimum conditions for the storage of material until required for grafting
- stages of the grafting procedure and their purpose
- common problems and corrective action required
- hygiene requirements and procedures
- purpose and components of grafting equipment
- operating procedures for grafting equipment
- methods of callusing vine cuttings and the criteria for best callus development
- procedures and responsibility for reporting problems
- environmental issues and controls
- cleaning requirements and procedures for work area and equipment
- reporting and recording requirements and procedures
- routine maintenance procedures for equipment where relevant.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • select and prepare appropriate vine material for grafting including disbudding • undertake bench grafting of vines to instructions • post-grafting treatment and packing of vines is to instructions • monitor grafted vines and out of specification grafted vines identified and rectified or reported • follow personal and work area hygiene procedures • dispose of waste correctly • record and report results of grafting according to procedures.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.

EVIDENCE GUIDE	
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Grafting methods	<p>Grafting methods may include:</p> <ul style="list-style-type: none"> • T buds • Chip • Wedge • side bark

RANGE STATEMENT	
	<ul style="list-style-type: none"> • V • omega
Equipment	Equipment may include: <ul style="list-style-type: none"> • secateurs • grafting knife • grafting machine • vermiculite boxes • gloves • budding tape
Grafting seals	Grafting seals may include: <ul style="list-style-type: none"> • tape • fungicides • paint • wax
Materials	Vine material may include: <ul style="list-style-type: none"> • rootstock • scion • rootlings and cuttings (at various sizes)
Information systems	Information systems may be: <ul style="list-style-type: none"> • print or screen based
Confirming equipment status	Confirming equipment status will include: <ul style="list-style-type: none"> • checking that safety standards and pre-start requirements are met and that equipment is operational

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Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2002A Carry out potting operations

Modification History

This unit supersedes and is equivalent to FDFWGGCPOB Carry out potting operations.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialised unit has been developed for wine grape nurseries. It covers the skills and knowledge required to carry out potting operations under supervision.
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Application of the Unit

Application of the unit	This unit applies to wine grape growing and covers the potting of calloused cuttings. The unit includes preparation of cuttings and potting media, sterilisation of pots and work areas, potting of cuttings and transfer to glasshouses.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for potting operations	1.1 Work instructions on potting operations are confirmed and understood 1.2 Materials are confirmed as available and ready to meet potting requirements 1.3 Potential and existing hazards are identified, rectified and/or reported according to workplace procedures 1.4 Potting media is blended to according to workplace procedures 1.5 Pots and work areas are cleaned and sterilised to minimise risk of contamination 1.6 Grafted cuttings are prepared according to instructions
2. Pot on propagated material	2.1 Callused cuttings requiring potting are identified and collected according to instructions 2.2 Soil is placed in pots according to workplace procedures 2.3 Cuttings are planted according to instructions 2.4 Trays are labelled according to instructions 2.5 Safe work practices are implemented to minimise risk of hazards
3. Carry out post-potting treatments	3.1 Potted cuttings are transferred to the glasshouse according to instructions 3.2 Potted cuttings are watered according to instructions 3.3 Waste is collected and disposed of according to workplace procedures 3.4 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify potting requirements
- confirm supply of necessary materials
- liaise with other work areas and customers
- select, fit and use appropriate personal protective clothing and/or equipment
- select, operate, maintain and store required equipment according to instructions
- maintain work area and equipment to meet workplace housekeeping standards
- maintain work area and equipment to meet workplace hygiene standards
- use appropriate cleaning techniques
- recognise problems and anomalies and correct and/or report them as instructed
- implement safe work practices to minimise risk of hazard
- identify, rectify and/or report environmental non-compliance
- maintain workplace records
- prepare chemical treatments to required concentration and ensure a homogenous mix
- prepare cuttings as instructed. This may include:
 - grading
 - waxing
 - dipping in hormones
 - hydrating
- plant cuttings as instructed. This may include:
 - putting correct amount of media into the pots
 - placing cuttings with nodes facing upwards
- label trays as instructed
- transfer potted cuttings as instructed
- water potted cuttings as instructed
- collect and dispose of waste as instructed
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- Occupational health and safety (OHS) hazards and controls
- purpose and application of protective clothing and/or equipment
- correct operating procedures of equipment
- safe and effective handling of equipment
- safe preparation and handling of potting media
- cleaning requirements and procedures for work area and equipment
- eEnvironmental issues and controls
- reporting and recording requirements and procedures
- procedures and responsibilities for reporting problems and anomalies
- waste disposal requirements and procedures
- safe preparation and handling of chemicals
- commonly occurring problems with potted cuttings
- principles of nursery hygiene.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to: <ul style="list-style-type: none"> • use personal protective equipment, MSDS and follow other specified OHS procedures • correctly handle potting media and chemicals and disinfectants • select and mix chemical treatments to required concentrations • sterilise posts and work surfaces to instructions • select or blend potting media according to instructions and placed into pots • correctly carry out grading, waxing or other preparations of cuttings before potting • plant cuttings correctly and label trays

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • dispose of waste according to procedures • complete records correctly.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with and other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>

RANGE STATEMENT	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • potting machines • front-end loader • forklift
Materials	<p>Materials may include:</p> <ul style="list-style-type: none"> • potting mix • pots • cuttings • trays • pallets
Waste	<p>Waste may include:</p> <ul style="list-style-type: none"> • rejected cuttings • spilled potting media • damaged pots • boxes
Hazards	<p>Hazards may include:</p> <ul style="list-style-type: none"> • inhaling potting media • use of chemicals and disinfectants • moving machinery • transferring pots • exposure to sun • dust • using fungicide and hormone dips

RANGE STATEMENT	
	<ul style="list-style-type: none"> operating potting equipment
Media components	<p>Media components may include:</p> <ul style="list-style-type: none"> sand potting mix gravel gro-wool sawdust pine bark perlite vermiculite foam peat amendments nutrients ameliorants ash rice hulls sphagnum moss commercial mixes
Contamination	<p>Contamination may include:</p> <ul style="list-style-type: none"> pests diseases viruses
Problems and anomalies	<p>Problems and anomalies may include:</p> <ul style="list-style-type: none"> evidence of nematodes crown gall dehydration infection physical damage graft union failure
Treatments	<p>Common treatments may include:</p> <ul style="list-style-type: none"> waxing fungicide dips or drench watering in
Labelling	<p>Labelling may include:</p> <ul style="list-style-type: none"> variety clone

RANGE STATEMENT	
	<ul style="list-style-type: none">• batch number• date potted• number potted
Records	Records will include: <ul style="list-style-type: none">• batch number• clone variety• date potted• number potted• treatments administered

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2003A Hand prune vines

Modification History

This unit supersedes and is equivalent to FDFWGGHPVB Hand prune vines.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. It covers the skills and knowledge required to hand prune vines under regular supervision.
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Application of the Unit

Application of the unit	This unit covers the pruning of vines used in winemaking using a variety of hand operated or handheld equipment. Pruning methods may include spur pruning, cane pruning, rod and spur pruning. Pruning includes the ability to recognise problems and anomalies with vines and to select the best spurs, canes and buds according to instructions. The unit also covers the use of sharpening equipment and air compressors used for power pruning and sharpening equipment.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare equipment for hand pruning	1.1 Pruning equipment is checked to confirm readiness for use
2. Hand prune vines	2.1 Pruning equipment is started up and operated according to instructions as required 2.2 Equipment performance is monitored to confirm performance is maintained within specification as required 2.3 Vines are pruned in accordance with instructions 2.4 Anomalies and problems are recognised, rectified and/or reported 2.5 Equipment is maintained in good working order
3. Complete hand pruning operations	3.1 Equipment is shut down according to instructions as required 3.2 Equipment is cleaned and stored according to instructions 3.3 Vine cuttings are disposed of according to instructions 3.4 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify pruning requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- handle pruning equipment safely. This includes following the correct handling and sharpening procedures
- start up and operate automatic pruning equipment as required
- monitor and recognise performance problems with pruning equipment and correct or report them as instructed. This includes oiling moving parts and sharpening blades
- identify different parts of the grape vine. This should include identifying:
 - vine trunk and permanent framework
 - canes and/or cordons
 - tendrils and buds
- prune vines according to instructions. This may include:
 - selecting the best possible spurs and canes
 - positioning spurs or canes
 - cleanly removing sucker shoots
 - leaving the correct quantity of spurs, rods and buds
 - making cuts correctly and cleanly
 - recognising and removing unwanted growth
 - rolling and securing extension canes onto trellis wire as required
- use appropriate cleaning techniques
- recognise and report problems and anomalies
- shut down equipment in response to an emergency situation
- shut down equipment in response to routine shutdown requirements
- clean and store equipment according to instructions
- identify, rectify and/or report environmental non-compliance
- maintain work area to meet housekeeping standards
- dispose of vine cuttings according to instructions
- carry out routine preventive maintenance of equipment according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- purpose of pruning vines
- basic components of the vine
- basic difference between cane and spur pruning

- pruning requirements
- safe handling of pruning equipment
- purpose and application of personal protective clothing and/or equipment
- correct operating procedures for pruning equipment
- shutdown sequence
- tag-out and lock-out sequence and methods
- cleaning and storage requirements of pruning equipment
- Occupational health and safety (OHS) hazards and controls
- environmental issues and controls
- basic problems and anomalies
- procedures and responsibility for reporting problems and anomalies
- disposal requirements of vine cuttings
- routine preventive maintenance procedures for equipment where relevant.

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective clothing and equipment where required • follow pruning equipment safety procedures • start and operate pruning equipment correctly • select best spurs and canes • prune correctly and according to instructions • perform routine and emergency shut downs • follow environmental instructions • dispose of cuttings according to instructions • maintain records as required.
<p>Context of and specific resources for assessment</p>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p>

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	Workplace information can include:

RANGE STATEMENT	
	<ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • electronic, hydraulic, pneumatic and hand secateurs • sharpening stone • file • scabbard or pouch • choppers (two-handed snips) • petrol air compressors
Methods of pruning	<p>Methods of pruning may include:</p> <ul style="list-style-type: none"> • spur pruning • cane pruning • rod and spur pruning • hand clean up after machine pruning
Problems and anomalies	<p>Problems and anomalies may include:</p> <ul style="list-style-type: none"> • signs of common pests and diseases, such as mildew, eutypa, phomopsis, boring insects, dying arm, crown gall, diseased wood, dead vines, damaged trellis or irrigation system, and faulty, stiff or blunt equipment

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2005A Maintain callusing environment

Modification History

This unit supersedes and is equivalent to FDFWGGMCEB Maintain callusing environment.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for wine grape nurseries. It covers the skills and knowledge required to maintain a callusing environment under supervision.
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Application of the Unit

Application of the unit	This unit applies to wine grape nursery staff who work with vine cuttings that are to be callused in preparation for planting. The unit covers the maintenance of the callusing environment, preparation of callusing boxes, pre- and post-callusing treatments and monitoring of callusing process. All work is done to specifications and knowledge of occupational health and safety (OHS), environmental and hygiene requirements is required.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare callusing environment	1.1 Work instructions on callusing are confirmed and understood 1.2 Materials required for callusing are confirmed as available and ready to meet requirements 1.3 Equipment is selected and used according to workplace procedures 1.4 Work area, equipment and boxes are cleaned and sterilised to minimise risk of contamination 1.5 Potential and existing hazards are identified, rectified and/or reported according to workplace procedures 1.6 Pre-mixed callusing media is prepared as instructed 1.7 Callusing environment is prepared according to workplace procedures 1.8 Callusing boxes are prepared according to workplace procedures
2. Prepare cuttings for callusing	2.1 Cuttings are prepared for callusing according to instructions 2.2 Pre-callusing treatments are applied as instructed 2.3 Cuttings are counted, bundled and labelled according to instructions 2.4 Cuttings are placed into boxes according to instructions
3. Maintain cuttings in callusing room	3.1 Cuttings are placed into callusing environment according to workplace procedures 3.2 Callusing environment is maintained within specifications 3.3 Cuttings are monitored for potential health problems according to workplace procedures 3.4 Post-callusing treatments are applied to maintain plant health according to workplace procedures
4. Carry out post-callusing operations	4.1 Callused cuttings are removed from callusing room as instructed 4.2 Waste is collected and disposed of according to workplace procedures 4.3 Facilities are cleaned and sterilised according to workplace

ELEMENT	PERFORMANCE CRITERIA
	procedures 4.4 Work is conducted in accordance with workplace environmental guidelines
5. Record information	5.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify callusing requirements
- confirm supply of necessary materials
- liaise with other work areas
- select, fit and use appropriate personal protective clothing and/or equipment
- select, operate, maintain and store the required equipment according to instructions
- maintain work area and equipment to meet workplace housekeeping standards
- maintain work area and equipment to meet workplace hygiene standards
- use appropriate cleaning techniques
- recognise problems and anomalies and correct and/or report them as instructed
- identify, rectify and/or report environmental non-compliance
- maintain workplace records
- prepare callusing media to specified moisture levels
- prepare callusing environment. This may include:
 - turning on heaters and fans
 - setting and monitoring temperature and relative humidity
- prepare callusing boxes. This may include:
 - filling boxes with sand or vermiculite
 - lining boxes
 - storing excess media
- prepare chemical treatments to required concentration and ensure homogenous mix
- prepare cuttings for callusing. This may include:
 - taking cuttings out of storage
 - cutting just below basal bud
- apply pre-callusing treatment. This may include:

- hydrating cuttings
- applying fungicide treatments
- applying root promoter treatment
- prepare labels in a clear and legible manner with waterproof ink
- place cuttings into boxes. This may include:
 - feeling into media
 - watering in
 - placing correct number of cuttings per box
 - placing basal end at bottom
 - dipping into hormone mixes
 - arranging cuttings according to variety, clone and source
 - labelling and mapping of beds
- maintain callusing environment. This may include consideration of:
 - temperature
 - relative humidity
 - moisture levels of growing medium
- monitor cuttings for potential health problems. This may include identifying:
 - uneven callusing
 - dehydration
 - presence of pests and diseases
- apply post-callusing treatments. This may include:
 - hydrating cuttings
 - applying fungicides
- remove callused cuttings. This may include:
 - loading cuttings onto trucks or trailers
 - potting or planting cuttings
- dispose of waste as instructed. This may include:
 - pasteurising callusing media
 - spreading waste material through the vineyard
 - placing waste in bins for removal by disposal company
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- OHS hazards and controls

- purpose of personal protective clothing and/or equipment
- correct operating procedures for equipment
- safe and effective handling of equipment
- cleaning requirements and procedures for work area and equipment
- environmental issues and controls
- reporting and recording requirements and procedures
- procedures and responsibilities for reporting problems and anomalies
- waste disposal requirements and procedures
- safe preparation and handling of chemicals
- purpose and benefit of pre- and post-callusing treatments
- pre-callusing treatment procedures
- post-callusing treatment procedures
- principles of nursery hygiene
- procedures for preparing pre-mixed callusing media
- factors in a controlled callusing environment that affect the vine cutting
- procedures for maintaining callusing environment
- common problems that occur during callusing and how they should be resolved (e.g. uneven callusing or evidence of dehydrated cuttings on arrival)
- quality control process in the callusing environment.

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective clothing and equipment where required • observe hygiene and housekeeping standards including correct cleaning and sterilisation of work area, equipment and boxes • prepare callusing media and boxes to specification • prepare cuttings and apply pre-callusing treatment

EVIDENCE GUIDE	
	<p>correctly</p> <ul style="list-style-type: none"> • place cuttings into callusing boxes correctly • monitor and maintain callusing environment to specification • monitor cuttings for correct callusing and report problems according to procedures • apply post-callusing treatment correctly • remove callused cuttings correctly • record information appropriately.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation, recording requirements and procedures.
Method of assessment	<p>This unit should be assessed together with other units of competency relevant to the function or work role.</p>
Guidance information for assessment	<p>To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDSs) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • thermometer • hydrothermometer • hydraulic bin • trolley or trailer • personal protective clothing and/or equipment • forklift
Materials	<p>Materials may include:</p> <ul style="list-style-type: none"> • cuttings • callusing media • rooting hormone • boxes • pallets
Contamination	<p>Contamination may include:</p> <ul style="list-style-type: none"> • pests • diseases • viruses

RANGE STATEMENT	
Waste	<p>Waste may include:</p> <ul style="list-style-type: none"> • callusing media • damaged cuttings • callusing containers
Hazards	<p>Hazards may include:</p> <ul style="list-style-type: none"> • obstacles • inhaling callusing media • operating equipment • using chemicals and disinfectants
Label information	<p>Label information may include:</p> <ul style="list-style-type: none"> • clone • variety • rootstock • date placed into callusing room • date to be removed • treatments applied • source of rootstock and scion
Problems and anomalies	<p>Problems and anomalies may include:</p> <ul style="list-style-type: none"> • evidence of crown gall • dehydration • fungal infection • physical damage • graft union failure • excessive galling
Records	<p>Records will include:</p> <ul style="list-style-type: none"> • treatments applied • clones • variety • source • batch numbers • numbers of vines in callus boxes • numbers of boxes packed • date of callusing

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2006A Obtain and process rootlings

Modification History

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. It covers the processing of vine rootlings in wine grape nurseries including, where required, digging of rootlings from field nurseries.
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Application of the Unit

Application of the unit	This unit applies to wine grape growing and covers the processing of rootlings. Rootlings may include those developed from cuttings in a sand bed or callusing room, or those freshly dug from a field nursery.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to process rootlings	<p>1.1 Work instructions for the processing of rootlings are confirmed and understood</p> <p>1.2 Facilities are cleaned and sterilised to minimise risk of contamination</p> <p>1.3 Materials are confirmed as available and ready to meet requirements</p> <p>1.4 Equipment is collected and checked for serviceability and sterilised as required by workplace procedures</p> <p>1.5 Potential and existing hazards are identified, rectified and/or reported according to workplace procedures</p>
2. Obtain rootlings	<p>2.1 Requirement for rootlings from field nurseries, sand beds or callusing are checked against instructions</p> <p>2.2 Rootlings if required are dug from field nurseries using tractor mounted or trailed digging machines or hand-held tools</p> <p>2.3 Rootlings are obtained from sand beds or callusing room according to requirements</p>
3. Process rootlings	<p>3.1 Rootlings are treated and bundled according to instructions</p> <p>3.2 Bundles are labelled, packed and stored according to instructions</p> <p>3.3 Waste is collected and disposed of according to workplace procedures</p> <p>3.4 Work is conducted in accordance with workplace environmental guidelines</p> <p>3.5 Problems and anomalies are identified, rectified and/or reported according to workplace procedures</p> <p>3.6 Safe work practices are employed to minimise work hazards</p>
4. Prepare rootlings for dispatch	<p>4.1 Bundles of rootlings are assembled according to instructions</p> <p>4.2 Rootlings are prepared and packed for dispatch according to instructions</p> <p>4.3 Stock is loaded for dispatch according to instructions</p>

ELEMENT	PERFORMANCE CRITERIA
	4.4 Orders are checked against goods being dispatched according to workplace procedures
	4.5 Safe work practices are employed to minimise work hazards
5. Record information	5.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify rootling processing requirements
- confirm supply of necessary materials
- liaise with other work areas
- select, fit and use appropriate personal protective clothing and/or equipment
- select, operate, maintain and store required equipment according to instructions
- maintain work area and equipment to meet workplace housekeeping and hygiene standards
- use appropriate cleaning techniques
- recognise problems and anomalies and correct and/or report them as instructed
- identify, rectify and/or report environmental non-compliance
- maintain workplace records
- select and use materials as required
- prepare chemical treatments to required concentration and ensure a homogenous mix
- handle rootlings correctly
- treat rootlings as instructed. This may include:
 - complete hydration of all rootlings
 - complete chemical treatment of all rootlings
 - removal of unwanted plant material
- monitor the standard of rootlings and grade them as instructed. This may include sorting for:
 - diameter of stem
 - appearance
 - length and number of shoots
 - strength of graft union
- bundle and label rootlings as instructed. This may include:
 - ensure correct numbers per bundle

- lay rootlings all the same way in bundles
- tie bundles securely
- labell legibly and accurately
- pack and store rootlings as instructed. This may include meeting instructions for:
 - cold room layout
 - cold room temperature variations
 - customer requirements
 - storage time requirements
- collect and dispose of waste as required to minimise risk of environmental damage
- check stock against orders. This may include checking order requirements for:
 - quantity of stock
 - varieties and clones
 - quality of stock is within specifications
- dispatch stock as instructed. This may include:
 - correct manual handling
 - correct use of mechanical transfer equipment
- liaise with customers. This may include:
 - taking orders
 - notifying customers about availability of stock
 - notifying customers about dispatch dates
 - identifying specific treatments of stock
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- occupational health and safety (OHS) hazards and controls
- purpose and application of personal protective clothing and/or equipment
- correct operating procedures for equipment
- safe and effective handling of equipment
- principles of nursery hygiene
- cleaning requirements and procedures for work area and equipment
- reporting and recording requirements and procedures
- procedures and responsibilities for reporting problems and anomalies
- waste disposal requirements and procedures
- environmental issues and controls

- equipment operation and maintenance requirements and procedures
- safe preparation and handling of chemicals
- common features of healthy vine rootlings
- common features of unhealthy vine rootlings
- factors that influence how a rootling should be graded and why
- package, storage requirements and procedures for rootlings ready for sale
- rootling preparation requirements and procedures for sales or transfers to customers.

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective equipment, (MSDS and follow other specified OHS procedures) • handle chemicals and disinfectants correctly • select and mix chemical treatments to required concentrations • sterilise equipment and work surfaces to instructions • obtain rootlings correctly from required sources (e.g. field nursery, sand beds or callusing room) • treat, bundle, store and label rootlings correctly • identify and report problems and anomalies • treat and dispose of waste correctly • keep appropriate records.
<p>Context of and specific resources for assessment</p>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality

EVIDENCE GUIDE	
	<p>and environmental requirements</p> <ul style="list-style-type: none"> • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions

RANGE STATEMENT	
	<ul style="list-style-type: none"> • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Wine grape nursery facilities	<p>Wine grape nursery facilities may include:</p> <ul style="list-style-type: none"> • cold storage • bins • water • fungicide treatment areas • storage bins or tanks • soakage tanks
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • secateurs • personal protective clothing and/or equipment • bins • boxes • counting machine • packing machine • forklift
Materials	<p>Materials may include:</p> <ul style="list-style-type: none"> • string • labels • chemicals • sand • wax • pallets
Waste	<p>Waste may include:</p> <ul style="list-style-type: none"> • off-cuts • dropped or rejected rootlings • packaging materials
Work hazards	<p>Work hazards may include:</p> <ul style="list-style-type: none"> • damaging fingers or eyes from use of tools and equipment • manual handling • lifting bundles

RANGE STATEMENT	
	<ul style="list-style-type: none"> • falling over in an untidy work area • using chemicals and disinfectants
Problems and anomalies	<p>Problems and anomalies may include:</p> <ul style="list-style-type: none"> • evidence of nematodes • crown gall • dehydration • infection • physical damage • damaged buds • immature wood
Rootlings	<p>Rootlings may include:</p> <ul style="list-style-type: none"> • those developed from cuttings in a sand bed or callusing room • those freshly dug from a field nursery
Grading rootlings	<p>Grading rootlings may include sorting for:</p> <ul style="list-style-type: none"> • diameter of stem • appearance • length of shoots • number of shoots • strength of graft union
Label information	<p>Label information may include:</p> <ul style="list-style-type: none"> • class of the material • variety and clone • grade of cutting • the source identification code • name of customer • date packed
Treatments	<p>Treatments may include:</p> <ul style="list-style-type: none"> • hydration • chemical treatment • trimming • grading
Customer requirements	<p>Customer requirements may include:</p> <ul style="list-style-type: none"> • quantity • level of root trimming • level of shoot trimming

RANGE STATEMENT	
Packing	Packing may include: <ul style="list-style-type: none"> • packing, venting and sealing cuttings into polythene film bags • wrapping cuttings in wet hessian • packing in woven polypropylene wool packs
Loading of rootlings	Loading of rootlings may be: <ul style="list-style-type: none"> • done manually or with the use of a forklift
Records	Records will include: <ul style="list-style-type: none"> • number of rootlings per bundle • number of bundles • treatments • date

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2008A Train vines

Modification History

This unit supersedes and is equivalent to FDFWGGTVB Train vines.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. It covers the skills and knowledge required to train growing vines by hand.
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Application of the Unit

Application of the unit	This unit covers the training of vines used in winemaking using a variety of handheld hand or operated equipment. The unit requires knowledge of the different parts of a grape vine, the ability to detect problems and anomalies, and to use techniques for selection and training of laterals.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for training	1.1 Equipment is confirmed as available and ready for use 1.2 Materials are confirmed as available to meet training requirements
2. Train vines	2.1 Vines are trained according to instructions 2.2 Anomalies and problems are recognised, rectified and/or reported 2.3 Equipment is maintained in good working order
3. Complete training activities	3.1 Equipment is cleaned and stored according to workplace procedures 3.2 Waste generated by both the process and cleaning procedures is collected, treated, disposed of or recycled according to workplace procedures 3.3 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify training requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- set up and operate equipment as required according to instructions

- identify different parts of the grapevine. This should include identifying:
 - vine trunk and permanent framework
 - canes and/or cordons
 - tendrils and buds
 - fruit
- recognise and rectify or report problems and anomalies
- identify, rectify and/or report environmental non-compliance
- train vines according to instructions. This may include:
 - heading height
 - selection of appropriate laterals
 - positioning of laterals
 - securing of laterals
 - removing unwanted laterals from trunk and crown
- maintain work area to meet housekeeping standards
- clean and store equipment according to instructions
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- safe and effective handling of equipment
- correct operating procedures for equipment
- basic maintenance requirements and procedures for equipment
- purpose and application of personal protective clothing and/or equipment
- Occupational health and safety (OHS) hazards and controls
- procedures and responsibility for reporting problems and anomalies
- range of vine training techniques, features and benefits
- basic components of the vine
- training requirements and procedures
- common vineyard pests and diseases and other common vine problems
- environmental issues and controls
- cleaning and storage requirements and procedures for equipment
- reporting responsibilities and procedures.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective equipment, MSDS and follow other specified OHS procedures • identify parts of vines, including laterals, canes, cordons and buds • train vines to instructions • recognise faults and anomalies • keep records according to procedures.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over

EVIDENCE GUIDE	
	a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • snips • tape guns
Materials	<p>Materials may include:</p> <ul style="list-style-type: none"> • strings • stakes • wires • tape

RANGE STATEMENT	
Method of training	Method of training may vary according to workplace need, but may include: <ul style="list-style-type: none"> • unilateral or bilateral techniques
Problems and anomalies	Problems and anomalies may include: <ul style="list-style-type: none"> • uneven growth • pests and diseases • dead vines • broken trellis or wires
Waste	Waste may include: <ul style="list-style-type: none"> • vine trimmings • faulty materials • packaging

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2009A Operate specialised canopy management equipment

Modification History

This unit supersedes and is equivalent to FDFWGGCMSB Operate specialised canopy management equipment.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. It covers the skills and knowledge required to attach, set up, operate and detach canopy management equipment.
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Application of the Unit

Application of the unit	This unit applies to the operation of specialised equipment used in wine grape growing.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	AHCMOM202A Operate tractors
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for canopy management activities	1.1 Canopy management requirements are identified and planned 1.2 Canopy management equipment is confirmed as available and ready for use 1.3 Equipment is set up to meet requirements
2. Operate canopy management equipment	2.1 Equipment is started up according to workplace procedures 2.2 Canopy management techniques are applied to vines according to their vigour, capacity and manager's instructions 2.3 Equipment performance is monitored to confirm performance is maintained within specifications 2.4 Canopy management activities are monitored to confirm performance is maintained within specifications 2.5 Out-of-specification performance is identified, rectified and/or reported
3. Shut down canopy management equipment	3.1 Canopy management equipment is shut down according to workplace procedures 3.2 Equipment is cleaned and stored according to workplace procedures 3.3 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify canopy management requirements
- select, fit and use personal protective clothing and/or equipment
- liaise with other work areas
- identify canopy management requirements. Factors to be considered include:
 - grape variety
 - vine vigour
 - end use of fruit, quality and yield requirements
 - climate
 - operating conditions
 - workplace procedures, manager's instructions
- attach equipment to tractor
- set up equipment to meet requirements
- confirm equipment status and condition
- operate equipment to meet requirements
- recognise equipment performance problems and rectify and/or report according to workplace procedures
- monitor canopy management activities. This will include monitoring:
 - width of canopy
 - speed of tractor and power take-off rpm
 - density of foliage
 - air circulation
 - light penetration or shade
 - bud numbers, spur length
 - vine damage
 - progress
 - problems and anomalies
- shut down equipment in response to an emergency situation
- shut down equipment in response to routine shutdown requirements
- clean and store equipment
- detach equipment from tractor
- use appropriate cleaning techniques
- take corrective action in response to out-of-specification results or non-compliance
- report and/or record problems and/or corrective action
- identify, rectify and/or report environmental non-compliance
- maintain workplace records
- maintain work area to meet housekeeping standards

- carry out routine maintenance of equipment according to enterprise procedures
- use hand tools according to enterprise procedures
- use power tools according to enterprise procedures
- interpret mechanical drawings according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- key factors affecting the canopy management technique adopted. These may include:
 - climate, forecast and current weather conditions
 - vineyard aspect and terrain
 - grape variety and vigour
 - grape quality and characteristics required
 - trellis design
 - harvesting techniques
 - disease risk and occurrence
 - stage of maturity and development
- operating parameters and procedures
- recognition of correct vine growth stages at which to carry out canopy management activities
- factors influencing vine vigour, including:
 - grape variety
 - trellis design
 - vine spacing
 - fertilisers
 - irrigation
 - rootstock
- features and benefits of a range of canopy management styles and techniques and their respective affect on grape quality, cropping yield and wine production requirements. This should include techniques to manage:
 - light penetration and shading
 - air circulation and disease reduction
 - annual growth stages of vine development
 - crop quality and quantity
- significance and method of monitoring canopy management activities
- purpose and basic components of canopy management equipment
- operational procedures for equipment

- Occupational health and safety (OHS) hazards and controls
- environmental issues and controls
- basic vine canopy problems or anomalies
- procedures and responsibility for reporting problems
- cleaning and storage requirements and procedures for equipment
- shutdown sequence
- routine maintenance procedures for equipment where relevant
- procedures for using hand tools where relevant
- procedures for using power tools where relevant
- interpretation of mechanical drawings where relevant.

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective clothing and equipment • select and confirm availability of equipment and prepare according to instructions • attach, set up equipment to meet requirements • start and operate equipment in accordance with operation instructions and requirements of workplace and task • perform emergency and routine shutdowns • take corrective action in response to out-of-specification results or non-compliance • demonstrate knowledge of OHS hazards, controls and emergency procedures • sort, collect, treat, recycle or dispose of waste • record information appropriately.
<p>Context of and specific resources for assessment</p>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p>

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Polices and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	Workplace information may include:

RANGE STATEMENT	
	<ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal directions from manager, supervisor or senior operator
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • tractor • circular saws • cutter bars • blades • knives • drum pruners • mechanical leaf pluckers • wire lifters
Terrain	<p>Terrain must enable safe and effective operation of equipment. It may include:</p> <ul style="list-style-type: none"> • tracks • access roads • vineyard rows • open paddocks • flat, undulating, steep, hilly or terraced land • and on- and off-road environments
Conditions	<p>Conditions must enable safe and effective operation of equipment. These may include:</p> <ul style="list-style-type: none"> • dry • wet • slippery • boggy • icy • foggy • windy • day and night conditions
Confirming equipment status	<p>Confirming equipment status will include:</p> <ul style="list-style-type: none"> • checking that all safety standards and pre-start

RANGE STATEMENT	
	requirements are met and that equipment is operational
Information systems	Information systems may be: <ul style="list-style-type: none"> • print or screen based
Canopy management techniques	Canopy management techniques may vary and should include: <ul style="list-style-type: none"> • those required by the workplace (e.g. pruning, trimming, plucking and lifting)
Problems and anomalies	Problems and anomalies may include: <ul style="list-style-type: none"> • dead vines • signs of common pests and diseases, such as light brown apple moth (LBAM), boring insects, mildew, eutypa, phomopsis, dying arm, crown gall and diseased wood • signs of trellis and/or irrigation disrepair or problems • machinery breakdowns

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2010A Field graft vines

Modification History

This unit supersedes and is equivalent to FDFWGGFGVB Field graft vines.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. This unit covers the skills and knowledge required to select appropriate vine material and field graft vines.
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Application of the Unit

Application of the unit	This unit applies to work conducted in the field to select and prepare vines for grafting and complete grafting activities. It includes application of treatment as required.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to field graft vines	1.1 Materials are confirmed and available to meet grafting requirements 1.2 Vine material is selected and prepared for grafting 1.3 Equipment is checked to confirm readiness for use
2. Field graft vines	2.1 Vines are field grafted according to instructions 2.2 Vine graft is treated and taped according to instructions 2.3 Grafting process and equipment are monitored to ensure results are maintained within specifications 2.4 Out-of-specification process and equipment performance are identified, rectified and/or reported
3. Complete field grafting activities	3.1 Equipment is cleaned as required 3.2 Unused grafting material is disposed of or stored according to workplace procedures 3.3 Waste generated by both the grafting and cleaning procedures is collected, treated, disposed of or recycled according to workplace procedures 3.4 Work is conducted in accordance with workplace environmental guidelines 3.5 Required documentation is completed

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify grafting requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- liaise with other work areas and customers
- confirm supply of necessary materials
- select appropriate vine material for grafting. This may include consideration of:
 - variety and clone
 - matching cambium
 - matching bevels and sizes
 - viable buds
 - achievement of tight unions
- prepare vine material for grafting. This may include:
 - soaking buds
 - working appropriate incisions
 - hot water treatment of cuttings
 - virus tests
 - compatibility tests
 - hydration of cuttings
 - cutting to size
- select and prepare equipment as required
- graft vines in the field according to instructions. This should include:
 - selecting appropriate bud location to graft
 - ensuring cohesion of graft union
- operate equipment safely
- treat vines after grafting. This may include:
 - applying fungicide
 - securing with tape
 - painting
 - waxing
- monitor the process and equipment operation to identify out-of-specification results or non-compliance. This may include monitoring:
 - percentage take
 - weather conditions
 - pests and diseases (e.g. weevils)
- store unused grafting material
- take corrective action in response to out-of-specification results or non-compliance
- report and/or record corrective action as required
- sort, collect, treat, recycle or dispose of waste as required
- maintain work area to meet housekeeping standards
- Clean equipment after use

- identify, rectify and/or report environmental non-compliance
- conduct routine maintenance of equipment according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- purpose of grafting and various methods of budding and grafting
- criteria for successful grafting
- advantages of using clonal rootstock material
- criteria for selecting parent vines for scion material
- correct procedure and optimum conditions for the storage and handling of material until required for grafting
- advantages of using clonal and registered vine improvement material
- importance of selection and use of rootstock
- stages of the grafting procedure and their purpose
- common problems and corrective action required
- purpose, components and operation of grafting equipment
- methods of callusing vine cuttings and the criteria for best callus development
- procedures and responsibilities for reporting problems
- Occupational health and safety (OHS) hazards and controls
- environmental issues and controls
- cleaning requirements for work area and equipment
- recording requirements and procedures
- routine maintenance procedures for equipment where relevant.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance

EVIDENCE GUIDE	
	with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • select and prepare appropriate vine material for grafting, including disbudding • field graft vines to instructions • conduct post-grafting treatment and packing of vines • monitor grafted vines and identify and rectify or report out-of-specification grafted vines • follow personal and work area hygiene procedures • dispose of waste correctly • record and report results of grafting according to procedures.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Grafting methods	<p>Grafting methods may include:</p> <ul style="list-style-type: none"> • T buds • chip • wedge • side bark
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • secateurs • grafting knife
Grafting seals	<p>Grafting seals may include:</p> <ul style="list-style-type: none"> • tape • fungicides • paint • wax
Materials	<p>Materials may include:</p> <ul style="list-style-type: none"> • cuttings • buds

RANGE STATEMENT	
	<ul style="list-style-type: none"> • dormant or green material • nursery rootstock rootlings • mature vines for Vinifera varietal topworking
Information systems	Information systems may be: <ul style="list-style-type: none"> • print or screen based
Confirming equipment status	Confirming equipment status will include: <ul style="list-style-type: none"> • checking that safety standards and pre-start requirements are met and that equipment is operational
Work hazards	Work may involve exposure to: <ul style="list-style-type: none"> • chemical, dangerous or hazardous substances

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2015A Support mechanical harvesting operations

Modification History

This unit supersedes and is equivalent to FDFWGGMHSB Support mechanical harvesting operations.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of wine sector. It covers the skills and knowledge required to collect grapes from a mechanical harvester and deliver them to the receival point.
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Application of the Unit

Application of the unit	This unit includes the ability to attach, set up and detach equipment as required, and the support of activities from harvesting to preparation for receival.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		
	AHCMOM202A	Operate tractors
	FDFWGG2018A	Operate vineyard equipment

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for harvest support activities	1.1 Work requirements are identified 1.2 Equipment is checked to confirm readiness for use 1.3 Equipment is set up to meet harvest support requirements
2. Collect grapes from harvester	2.1 Tractor towing trailer or gondola is driven alongside mechanical harvester according to instructions 2.2 Collection activities are monitored to confirm performance is maintained within specification 2.3 Out-of-specification performance is recognised, rectified and/or reported 2.4 Problems and anomalies are recognised, rectified and/or reported 2.5 Equipment is maintained in good working order
3. Transfer grapes to receival point	3.1 Chemicals are added to grapes according to instructions 3.2 Grapes are delivered to receival point according to instructions
4. Complete harvest support activities	4.1 Equipment is cleaned according to workplace procedures 4.2 Waste generated by the process or cleaning procedures is collected, sorted and disposed of or recycled, according to workplace procedures 4.3 Work is conducted in accordance with workplace environmental guidelines
5. Record information	5.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify harvest support requirements
- liaise with other work areas
- select, fit and use appropriate personal protective clothing and/or equipment
- select, attach and set up appropriate equipment
- carry out pre-operational checks of equipment according to workplace procedures
- operate equipment safely
- identify and rectify, remove and/or report potential occupational health and safety (OHS) hazards
- collect grapes from the discharge conveyer. This should include:
 - avoiding all contact with or damage to other machinery and equipment, vines, trellises or fences
 - safe handling of equipment
 - maintaining appropriate speed and distance
 - starting off and swapping over
 - changing rows
 - day-time and night-time harvesting
 - variety of harvesting conditions and varieties
- monitor grape collection activities. This may include monitoring:
 - equipment breakages or malfunction
 - vine or trellis damage
 - grape quality and quantity
 - matter other than grapes (MOG) collected
 - load weight
 - chemical application to fruit loads
 - collection accuracy of grapes
 - tipping accuracy of grapes at receival point
 - progress
 - congestion or backlog at receival point
 - performance according to specifications
- report and/or record problems and/or corrective action
- identify, rectify and/or report environmental non-compliance
- shut down equipment in response to an emergency situation

- shut down equipment in response to routine shutdown requirements
- handle, prepare and add chemicals according to instructions
- take the necessary action to protect fruit quality where possible. This may include parking fruit carriers in a shaded area
- deliver grapes to receival point according to instructions. This may include tipping the trailer or gondola
- maintain workplace records according to workplace standards
- maintain work area to meet housekeeping standards
- use appropriate cleaning techniques
- carry out routine maintenance of equipment according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- key factors that will affect grape and/or wine quality. This may include:
 - temperature
 - oxidation
 - MOG collected
 - speed of processing
 - chemical addition
- features and benefits of methods to preserve grape and/or wine quality
- common problems and anomalies
- procedures and operating parameters
- significance and methods of monitoring performance
- common faults and corrective action required
- OHS hazards and controls
- environmental issues and controls
- procedures and responsibility for reporting problems
- recording requirements and procedures
- cleaning requirements associated with changeovers
- shutdown sequence of equipment
- cleaning procedures
- routine maintenance procedures for equipment where relevant.

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective clothing and equipment • confirm availability of specified materials and prepare according to instructions • select and confirm status and suitability of equipment • start and operate equipment in accordance with operation instructions and requirements of workplace and task • monitor harvesting operation to achieve specified result • take corrective action in response to out-of-specification results or non-compliance • demonstrate knowledge of OHS hazards, controls and emergency procedures • sort, collect, treat, recycle or dispose of waste • record information appropriately.
<p>Context of and specific resources for assessment</p>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as

EVIDENCE GUIDE	
	<p>required</p> <ul style="list-style-type: none"> documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> Standard Operating Procedures (SOPs) specifications production schedules instructions routine maintenance schedules work notes Material Safety Data Sheets (MSDS) manufacturer instructions verbal direction from manager, supervisor or senior operator
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> tractors

RANGE STATEMENT	
	<ul style="list-style-type: none"> • trailers • gondolas • grape bins • forklift
Problems and anomalies	<p>Problems and anomalies may include:</p> <ul style="list-style-type: none"> • rotten, diseased, immature or over-ripe grapes • MOG • potential hazards for the harvester or operators
Terrain	<p>Terrain must enable the safe and effective performance of harvest support activities. It may include:</p> <ul style="list-style-type: none"> • tracks • access roads • straight or curving vineyard rows • flat, undulating, steep, hilly or terraced land • on- and off-road environments
Conditions	<p>Conditions must enable the safe and effective performance of harvest support activities. These may include:</p> <ul style="list-style-type: none"> • dry • wet • slippery • boggy • icy • foggy • windy • day and night conditions
Receival points	<p>Receival points may include:</p> <ul style="list-style-type: none"> • a winery • marshalling area • truck or loading bays
Equipment status	<p>Confirming equipment status involves:</p> <ul style="list-style-type: none"> • checking that all safety standards and pre-start requirements are met and equipment is operational
Information systems	<p>Information systems may be:</p> <ul style="list-style-type: none"> • print or screen based
Work hazards	<p>Work may involve exposure to:</p>

RANGE STATEMENT

- chemical, dangerous or hazardous substances

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2016A Install and maintain vine trellis

Modification History

This unit supersedes and is equivalent to FDFWGGMVTB Install and maintain vine trellis.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. It covers the skills and knowledge required to install and maintain vine trellising.
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Application of the Unit

Application of the unit	This unit applies to installing and maintaining trellises for vines used in winemaking. Trellises are installed and maintained according to written or verbal instructions. Equipment used is both manual and automatic.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for trellising activities	1.1 Existing trellises are checked for signs of disrepair 1.2 Equipment is prepared and checked to confirm readiness for use 1.3 Materials are selected according to instructions 1.4 Posts and supports are laid out according to instructions 1.5 Wire is run out according to instructions
2. Erect and maintain trellises	2.1 Equipment is started up and operated according to workplace procedures 2.2 Trellis ends and posts are erected and assemblies strained according to instructions 2.3 Foliage and trellis wires are attached and tensioned according to instructions 2.4 Trellis maintenance is carried out according to workplace procedures 2.5 Problems and anomalies are recognised, rectified and/or reported
3. Complete trellising activities	3.1 Equipment is shut down according to workplace procedures as required 3.2 Equipment is cleaned and stored according to workplace procedures 3.3 Materials are stored according to workplace procedures 3.4 Waste is collected and disposed of or recycled according to workplace procedures 3.5 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify trellis requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- select appropriate materials. This will include type and quantity
- check equipment and complete pre-start checks as required
- repair trellis according to workplace standards. This may include:
 - positioning and depth of posts and strainers
 - positioning and number of wires
 - tightness and grade of wire
- lay out posts and supports according to instructions. This may include:
 - spacing
 - type
 - numbers
 - positioning
 - safe handling procedures
- run out wire according to instructions. This will include:
 - securing of ends
 - safe handling procedures
 - cutting correct length
 - positioning
- operate equipment according to instructions
- erect trellis ends and assemblies according to instructions
- attach foliage and trellis wires according to instructions. This includes:
 - spacing
 - alignment
 - height
 - tension
 - fixing method
 - joining systems (e.g. wire knots)
- recognise, rectify and/or report problems and anomalies of trellis installation
- use hand tools
- collect, sort, treat, dispose of and/or recycle waste
- identify, rectify and/or report environmental non-compliance

- clean and store equipment according to instructions
- use appropriate cleaning techniques
- implement appropriate occupational health and safety (OHS) procedures
- store unused materials
- maintain work area to meet housekeeping standards
- conduct routine maintenance of equipment according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- purpose, features and components of the trellis system
- trellis installation process and procedures
- common maintenance requirements of vineyard trellising and how to repair them
- common faults, problems and how to solve them
- safe handling of materials and equipment
- purpose and application of personal protective clothing and/or equipment
- OHS hazards and controls
- environmental issues and controls
- procedures and responsibility for reporting problems and anomalies
- cleaning and storage requirements and procedures for equipment
- storage requirements and procedures for materials
- maintenance procedures for equipment where relevant.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

EVIDENCE GUIDE	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective clothing and equipment where required • carry out trellis repairs according to instructions • lay out posts and supports according to instructions • cut, cure, position and tension wires according to instructions • store unused materials correctly • collect and recycle or dispose of waste according to procedures.
<p>Context of and specific resources for assessment</p>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
<p>Method of assessment</p>	<p>This unit should be assessed together with other units of competency relevant to the function or work role.</p>
<p>Guidance information for assessment</p>	<p>To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Policies and procedures

Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements

Workplace information

Workplace information can include:

- Standard Operating Procedures (SOPs)
- specifications
- production schedules
- instructions
- routine maintenance schedules
- work notes
- Material Safety Data Sheets (MSDS)
- manufacturer instructions
- verbal direction from manager, supervisor or senior operator

Equipment

Equipment may include:

- wire strainers
- pliers
- manual and mechanical post inserters
- hammers
- saws

Materials

Materials may include:

- wire
- staples
- posts

Trellis installation and maintenance

Trellis installation and maintenance includes:

- supports
- posts
- strainers
- wires

Waste

Waste may include:

RANGE STATEMENT

- wire lengths
- broken or faulty posts and supports
- faulty fastenings

Unit Sector(s)**Unit sector**

Wine operations

FDFWGG2018A Operate vineyard equipment

Modification History

This unit supersedes and is equivalent to FDFWGGVEQB Operate vineyard equipment.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. It covers the skills and knowledge required to operate a range of vineyard equipment that does not require calibration. Where the operation of specialised equipment is required, alternative units should be selected.
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Application of the Unit

Application of the unit	This unit applies to the operation of equipment used in wine grape growing. It includes the ability to attach, set up and detach equipment as required.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare equipment for operation	1.1 Requirements are interpreted and confirmed 1.2 Equipment is selected and checked to confirm readiness for use 1.3 Equipment is attached and set up according to instructions as required
2. Operate equipment	2.1 Equipment is started up according to workplace procedures 2.2 Equipment is operated according to workplace procedures 2.3 Equipment performance is monitored to confirm performance is maintained within specification 2.4 Out-of-specification equipment performance is identified, rectified and/or reported 2.5 Problems and anomalies are recognised and/or reported
3. Complete operation of equipment	3.1 Equipment is shut down according to workplace procedures 3.2 Equipment is prepared for cleaning and storage 3.3 Equipment is cleaned according to workplace procedures 3.4 Waste generated by both the activities and cleaning procedure is collected, treated and disposed of, or recycled according to workplace procedures 3.5 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and

processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- liaise with other work areas
- select appropriate equipment for the task
- confirm equipment status and condition. This may include checking:
 - fuel
 - water
 - oil (e.g. engine, gearbox and hydraulics)
 - belts
 - air intake
 - tyre pressure
 - metal fatigue or wear and tear
- attach equipment to towing vehicle as required
- set up equipment as required to meet operating instructions
- start up equipment
- operate equipment to meet operating instructions. This should include:
 - driving forward and reversing
 - operating in confined spaces
 - operating amongst other vineyard activities and a variety of conditions as required
- monitor equipment performance. This may include monitoring:
 - status and condition
 - handling and stopping ability
 - operating depth of equipment
 - blockages
 - ground speed or power take-off speed
 - width and/or coverage
 - environmental operating conditions
- recognise equipment performance problems and amend and/or report as instructed
- shut down equipment in response to emergency situations
- shut down equipment in response to routine shutdown requirements
- prepare equipment for cleaning and storage
- clean equipment
- store equipment according to instructions
- maintain work area to meet housekeeping standards
- collect, treat, recycle or dispose of waste according to workplace procedures
- identify, rectify and/or report environmental non-compliance
- use appropriate cleaning techniques
- maintain workplace records

- carry out routine maintenance of equipment according to enterprise procedures.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- purpose, features and components of equipment
- equipment pre-start checks
- equipment operating procedures
- process specifications, procedures and operating parameters
- common causes of variation or malfunction and the corrective action required
- required weather conditions for equipment operation
- Occupational health and safety (OHS) hazards and controls in all operating conditions
- significance and methods of monitoring equipment performance
- lock-out and tag-out procedures
- recording requirements and procedures
- procedures and responsibility for reporting problems
- environmental issues and controls
- cleaning requirements of equipment associated with changeovers and types of shutdown
- cleaning procedures
- storage requirements
- shutdown sequence
- routine maintenance procedures for equipment where relevant.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to: <ul style="list-style-type: none"> • use personal protective clothing and equipment • select and confirm availability of equipment and

EVIDENCE GUIDE	
	<p>prepare according to instructions</p> <ul style="list-style-type: none"> • attach and set up equipment to meet requirements • start and operate equipment in accordance with operation instructions and requirements of workplace and task • perform emergency and routine shutdowns • take corrective action in response to out-of-specification results or non-compliance • demonstrate knowledge of OHS hazards, controls and emergency procedures • sort, collect, treat, recycle or dispose of waste • record information appropriately.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Vineyard equipment	<p>Vineyard equipment may include, but is not limited to:</p> <ul style="list-style-type: none"> • all terrain vehicles • tractor mounted forklift • front-end loader • towed equipment (e.g. gondola) • three point linkage equipment (e.g. discs) • power take-off driven equipment (e.g. slasher) • equipment with hydraulics (e.g. tipping trailer) • stationary equipment (e.g. pumps and generators)
Terrain	<p>Terrain, where applicable, must enable safe and effective operation of the equipment. It may include:</p> <ul style="list-style-type: none"> • tracks • access roads • vineyard rows • open paddocks • flat, undulating, steep, hilly or terraced land • on- and off road environments
Conditions	Conditions, where applicable, must enable safe and

RANGE STATEMENT	
	<p>effective operation of the equipment. These may include:</p> <ul style="list-style-type: none"> • dry • wet • slippery • boggy • icy • foggy • windy • day and night conditions
Loads	<p>Loads, where applicable, may range from:</p> <ul style="list-style-type: none"> • full to empty as required
Confirming equipment status	<p>Confirming equipment status will include:</p> <ul style="list-style-type: none"> • checking that all safety standards and pre- start requirements are met and equipment is operational
Information systems	<p>Information systems may be:</p> <ul style="list-style-type: none"> • print or screen based

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2020A Carry out hot water treatment

Modification History

This unit supersedes and is equivalent to FDFWGGHWTB Carry out hot water treatment.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for wine grape nurseries. It covers the skills and knowledge required to carry out hot water treatment of grape vine cuttings.
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Application of the Unit

Application of the unit	Working with vine cuttings includes the ability to recognise problems and anomalies with vines. People undertaking this unit of competency in the workplace will require accreditation by the <i>Australian Vine Improvement Association (AVIA)</i> .
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for hot water treatment	1.1 Work instructions on hot water treatments are confirmed and understood 1.2 Materials are confirmed as available and ready to meet requirements 1.3 Equipment is set up according to specifications 1.4 Water is prepared for cool down, hot water treatment and hydration according to specifications 1.5 Potential and existing hazards are identified, rectified and/or reported according to workplace procedures
2. Treat cuttings	2.1 Cuttings are dipped in the hot water according to AVIA protocols 2.2 The dipping process is monitored for compliance with AVIA specifications 2.3 Safe work procedures are followed to minimise risk of hazards
3. Carry out post-treatment procedures	3.1 Cuttings are cooled down according to AVIA protocols 3.2 Treated cuttings are stored according to AVIA and workplace procedures 3.3 Waste is collected and disposed of according to workplace procedures 3.4 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Treatment information is recorded according to AVIA requirements

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information required to carry out hot water treatments
- confirm supply of necessary materials
- liaise with other work areas
- select, fit and use appropriate personal protective clothing and/or equipment
- select, operate, maintain and store required equipment according to instructions
- maintain work area and equipment to meet workplace housekeeping standards
- maintain work area and equipment to meet workplace hygiene standards
- use appropriate cleaning techniques
- recognise problems and anomalies and correct and/or report them as instructed
- identify, rectify and/or report environmental non-compliance
- maintain workplace records
- set up equipment for hot water treatment. This will include:
 - placing correct volumes of water in the tanks
 - calibrating data loggers
 - calibrating temperature sensors against a certified thermometer
 - calibrating thermometers
- prepare water for cool down, hot water treatment and hydration. This will include:
 - testing and adjusting chlorination levels
 - checking and adjusting temperature levels
- prepare cuttings for treatment. This may include re-hydration
- dip cuttings, fully submersing for the specified amount of time, at the specified temperature in prepared hot water
- monitor the dipping process to ensure compliance with required specifications. This will include:
 - monitoring critical control points for compliance with specifications
 - analysing readouts from data logging devices
 - maintaining level of agitation in the tanks
 - maintaining chlorine level
 - recalibrating thermometers
- cool down cuttings in prepared cooling water immediately following hot water treatment. this is already mentioned above
- store treated cuttings. This will include:
 - separating from untreated cuttings to prevent contamination
 - covering with clean covers
 - placing cuttings in vented plastic bags to prevent dehydration
 - placing cuttings in the cold room

- dispose of waste. This may include:
 - settling the water
 - racking off clean water
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- purpose of hot water treatment
- importance of precise treatment
- consequences of mistreatment
- AVIA and workplace specifications for hot water treatments
- reasons for using different specifications for hot water treatments
- monitoring techniques to ensure temperature and water quality are within specifications
- quality assurance process for the hot water treatment process
- Occupational health and safety (OHS) hazards and controls when undertaking hot water treatments
- purpose and application of personal protective clothing and/or equipment
- correct operating procedures for equipment
- safe and effective handling of equipment
- principles of nursery hygiene
- cleaning requirements and procedures for work area and equipment
- environmental issues and controls
- waste disposal requirements and procedures
- reporting and recording requirements and procedures
- procedures and responsibilities for reporting problems and anomalies.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the

EVIDENCE GUIDE	
	<p>assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective clothing and equipment where required • follow hot water treatment safety procedures • apply AVIA standards to heat and cool cuttings • handle cuttings according to instructions • recognise vine problems • dispose of waste according to instructions • maintain required records.
<p>Context of and specific resources for assessment</p>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
<p>Method of assessment</p>	<p>This unit should be assessed together with other units of competency relevant to the function or work role.</p>
<p>Guidance information for assessment</p>	<p>To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • routine maintenance schedules • work notes • manufacturer instructions • verbal directions from manager or supervisor
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • hydration tanks • treatment tanks • cooling-off tanks • dipping apparatus • electronic data logging devices • monitoring apparatus • certified reference thermometer • dipping cages • appropriate personal protective clothing and/or equipment • forklift
Materials	<p>Materials may include:</p> <ul style="list-style-type: none"> • cuttings • rootlings • water • chlorine
Waste	<p>Waste may include:</p> <ul style="list-style-type: none"> • water • damaged plant material

RANGE STATEMENT	
	<ul style="list-style-type: none"> • sediment
Hazards	Hazards may include: <ul style="list-style-type: none"> • heat sources • hot water • transferring vines • moving machinery • chlorine
Specifications	Specifications will include: <ul style="list-style-type: none"> • temperature range • length of time in a treatment • relative humidity • level of chlorination • amount of agitation required • quality of the water
Records	Records will include: <ul style="list-style-type: none"> • data logger print out • batch number • date of treatment • start and finish time of treatment • maximum temperature for treatments and cold room • minimum temperature for treatments and cold room • average temperatures for treatments and cold room • calibration information • name of operator

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2021A Operate nursery cold storage facilities

Modification History

This unit supersedes and is equivalent to FDFWGGOCSB Operate nursery cold storage facilities.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for wine grape nurseries. It covers the skills and knowledge required to operate and monitor nursery cold storage facilities.
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Application of the Unit

Application of the unit	Application of this unit requires cold room operation in accordance with specifications and knowledge of occupational health and safety (OHS), environmental and hygiene requirements.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare cold room for storage	1.1 Work instructions are confirmed and understood 1.2 Cold room facilities are cleaned and sanitised according to workplace procedures 1.3 Cold room specifications are set according to workplace procedures 1.4 Potential and existing hazards are identified, rectified and/or reported according to workplace procedures
2. Operate cold room	2.1 Environmental specifications are monitored according to workplace procedures 2.2 Movement of stock is monitored according to cold room plan and workplace procedures 2.3 Problems and anomalies are identified, rectified and/or reported according to workplace procedures 2.4 Safe work practices are employed to minimise work hazards
3. Shut down cold room	3.1 Cold room is shut down according to workplace procedures 3.2 Cold room is cleaned and secured according to workplace procedures 3.3 Waste is collected and disposed of according to workplace procedures 3.4 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information required to operate cold storage facilities
- liaise with other work areas
- select, fit and use appropriate personal protective clothing and/or equipment
- select, operate, maintain and store required equipment according to instructions
- identify, rectify and/or report environmental non-compliance
- maintain work area and equipment to meet workplace housekeeping and hygiene standards
- use appropriate cleaning techniques
- recognise problems and anomalies and correct and/or report them as instructed
- follow safe work procedures to minimise hazards
- collect, treat and dispose of waste according to workplace procedures
- maintain workplace records
- interpret and apply cold room plan
- confirm equipment status and condition. This may include:
 - checking all safety standards
 - conducting pre-start checks
- move material in and out of cold room. This may include:
 - transferring stock manually
 - using a mechanical transfer device
- recognise equipment performance problems and amend and/or report as instructed
- monitor the health of cuttings during storage. This may include identifying:
 - signs of dehydration
 - signs of fungal infection
- monitor cold room facilities according to workplace procedures. This may include identifying:
 - temperature variations
 - humidity variations
 - air flow
- shut down equipment in response to emergency situations
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- OHS hazards and controls when working in a cold room
- environmental issues and controls
- principles of nursery hygiene
- purpose and application of personal protective clothing and/or equipment
- procedures and responsibility for reporting problems
- lock-out and tag-out procedures
- cleaning requirements and procedures
- reporting and recording requirements and procedures
- waste disposal requirements and procedures
- principles of cold room planning
- principles of cold room operation
- purpose and use of components of a cold room
- cold room equipment operating procedures
- shutdown sequence
- principles of maintaining cold room performance
- methods of maintaining cold room performance
- methods of monitoring a cold room
- methods of packing a cold room
- common causes of variation or malfunction and the corrective action required
- effect of cold storage on cuttings
- post-storage treatment of cuttings.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to: <ul style="list-style-type: none"> • use personal protective clothing and equipment where required • observe housekeeping standards • monitor cold storage and stock conditions and make

EVIDENCE GUIDE	
	<p>required adjustments</p> <ul style="list-style-type: none"> • shut down, clean and secure cold storage facilities • recognise and act upon out-of-specification conditions • record information appropriately.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with

RANGE STATEMENT	
training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	Workplace information can include: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal directions from manager, supervisor or senior operator
Waste	Waste may include: <ul style="list-style-type: none"> • cleaning agents • unused stock
Potential hazards	Potential hazards may include: <ul style="list-style-type: none"> • cold room door closing while working inside • working in cold conditions • slippery floors • obstacles on the floor • overhead objects • operating forklifts and other moving objects
Problems and anomalies	Problems and anomalies may include: <ul style="list-style-type: none"> • fluctuations in temperature • breakdown of data loggers • fans or temperature controls • inadequate air flows due to incorrect stacking
Cold room specifications	Cold room specifications may include: <ul style="list-style-type: none"> • temperature range • spacing pattern for airflow • humidity
Cold room plans	Cold room plans may include: <ul style="list-style-type: none"> • stacking patterns

RANGE STATEMENT	
	<ul style="list-style-type: none">• stacking heights• movement of stock
Records	Records will include: <ul style="list-style-type: none">• temperature logs• material entering or leaving cold room• batch numbers

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG2022A Take and process vine cuttings

Modification History

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for wine grape nurseries. It covers the skills and knowledge required to take and process vine cuttings under supervision.
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Application of the Unit

Application of the unit	This unit covers the taking of vine cuttings from vines used in wine making cuttings and processing. A variety of hand operated or handheld equipment is used. Working with vine cuttings includes the ability to recognise problems and anomalies with vines and to select the best cuttings according to instructions.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Take vine cuttings	1.1 Cutting requirements are confirmed and understood 1.2 Equipment is checked to confirm readiness for use 1.3 Vine cuttings are taken according to instructions 1.4 Vine anomalies and problems are recognised, rectified and/or reported 1.5 Equipment is maintained in good working order
2. Complete vine cutting operations	2.1 Vine cuttings are collected according to instructions 2.2 Equipment is cleaned and stored according to instructions 2.3 Waste is collected and disposed of according to instructions
3. Prepare to process cuttings	3.1 Work instructions on the processing of cuttings are confirmed and understood 3.2 Facilities are cleaned and sterilised to minimise risk of contamination 3.3 Materials are confirmed as available and ready to meet requirements 3.4 Equipment is collected and checked for serviceability and sterilised as required by workplace procedures 3.5 Potential and existing hazards are identified, rectified and/or reported according to workplace procedures 3.6 Work is conducted in accordance with workplace environmental guidelines
4. Process cuttings	4.1 Cuttings are treated and bundled according to instructions 4.2 Bundles are labelled, packed and stored according to instructions 4.3 Waste is collected and disposed of according to workplace procedures 4.4 Problems and anomalies are identified, rectified and/or reported according to workplace procedures 4.5 Safe work practices are employed to minimise work hazards

ELEMENT	PERFORMANCE CRITERIA
5. Record information	5.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify cutting processing requirements
- confirm supply of necessary materials
- liaise with other work areas and customers
- select, fit and use appropriate personal protective clothing and/or equipment
- select, operate, maintain and store required equipment according to instructions
- maintain work area and equipment to meet workplace housekeeping standards
- maintain work area and equipment to meet workplace hygiene standards
- use appropriate cleaning techniques
- recognise problems and anomalies and correct and/or report them as instructed
- identify, rectify and/or report environmental non-compliance
- maintain workplace records
- handle pruning secateurs safely. This includes following the correct handling and sharpening procedures
- recognise performance problems with secateurs and correct or report them as instructed. This includes oiling moving parts and sharpening blades
- identify different parts of the grapevine. This should include identifying:
 - vine trunk and permanent framework
 - canes and/or cordons
 - tendrils and buds
- select and take vine cuttings according to instructions. This may include:
 - correct length and diameter
 - correct number of buds on the cutting
 - degree of straightness
 - cuts made correctly and cleanly
 - top cut at 45° angle or bottom bud flat, 1-2 cm from nearest bud
 - number of buds left on the vine
- collect and store vine cuttings according to instructions. This may include:

- numbers per bundle
- all lying the same way in the bundle (basal and distal ends)
- secure tying of bundles
- labelling
- maintaining hydration of cuttings
- prepare chemical treatments to required concentration and ensure homogenous mix
- treat cuttings as instructed. This may include:
 - completing hydration of all cuttings
 - completing chemical treatment of all cuttings
 - removing unwanted plant material
- monitor the standard of cuttings and grade them as instructed
- bundle and label cuttings as instructed. This may include:
 - including correct numbers per bundle
 - cuttings all lying the same way in the bundle
 - tying bundles securely
 - labelling legibly and accurately
- pack and store cuttings as instructed. This may include:
 - cold room layout
 - cold room temperature variations
 - customer requirements
 - storage time requirements
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- occupational health and safety (OHS) hazards and controls
- purpose and application of personal protective clothing and/or equipment
- correct operating procedures for equipment
- safe and effective handling of equipment
- cleaning requirements and procedures for work area and equipment
- reporting and recording requirements and procedures
- procedures and responsibilities for reporting problems and anomalies
- waste disposal requirements and procedures
- environmental issues and controls
- principles of nursery hygiene
- basic components of the vine

- basic vine problems and anomalies
- cutting requirements and procedures
- cutting collection and storage requirements, including hydration
- specifications of vine cuttings
- factors that influence how a cutting should be graded and why
- common features of healthy vine cuttings
- common features of unhealthy vine cuttings
- safe preparation and handling of chemicals.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to: <ul style="list-style-type: none"> • use personal protective clothing and equipment where required • follow cutting equipment safety procedures • select cuttings and cut according to instructions • handle, bundle, and label cuttings according to instructions • recognise vine problems • dispose of waste according to instructions • maintain required records.
Context of and specific resources for assessment	Assessment must occur in a real or simulated workplace where the assessee has access to: <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS)

RANGE STATEMENT	
	<ul style="list-style-type: none"> • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Facilities	<p>Facilities may include:</p> <ul style="list-style-type: none"> • cold storage • fungicide treatment areas • storage bins or tanks • soakage tanks
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • secateurs • personal protective clothing and/or equipment • bins • boxes • packing machine • counting machine • forklift
Materials	<p>Materials may include:</p> <ul style="list-style-type: none"> • string • labels • chemicals • sand • water • pallets
Waste	<p>Waste may include:</p> <ul style="list-style-type: none"> • off-cuts • dropped or rejected cuttings • packaging materials • chinisol • chemical containers
Work hazards	<p>Hazards may include:</p> <ul style="list-style-type: none"> • damaging fingers or eyes from use of tools and equipment • manual handling • lifting bundles • falling over in an untidy work area • using chemicals and disinfectants

RANGE STATEMENT	
Problems and anomalies	<p>Problems and anomalies may include:</p> <ul style="list-style-type: none"> • physical damage or signs of common pests and diseases, such as eutypa, phomopsis, nematodes, crown gall, diseased wood, dehydration, infection, physical damage, damaged buds, immature wood • different wood characteristics indicative of a different vine variety
Records	<p>Records will include:</p> <ul style="list-style-type: none"> • type of cuttings • quantity of cuttings • the count per bundle • number of bundles • treatments carried out • source identification code
Treatments	<p>Treatments may include:</p> <ul style="list-style-type: none"> • hydration • chemical treatment • trimming • grading
Grading	<p>Grading cuttings may include:</p> <ul style="list-style-type: none"> • sorting for length, diameter, appearance and number of viable buds
Label information	<p>Label information may include:</p> <ul style="list-style-type: none"> • class of the material • variety and clone • grade of cutting • the source identification code
Packing	<p>Packing may include:</p> <ul style="list-style-type: none"> • packing, venting and sealing cuttings into polythene film bags or packing bins • wrapping cuttings in wet hessian • packing in woven polypropylene wool packs

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG3002A Coordinate canopy management activities

Modification History

This unit supersedes and is equivalent to FDFWGGCCMA Coordinate canopy management activities.

April 2012: Minor typographical corrections.

Unit Descriptor

<p>Unit descriptor</p>	<p>This specialist unit has been developed for the wine grape growing stream of the wine sector. It covers the skills and knowledge required to identify and implement manual and automated canopy management activities.</p>
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Application of the Unit

<p>Application of the unit</p>	<p>Coordination skills required in applying this unit involve facilitating a team.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

<p>Employability skills</p>	<p>This unit contains employability skills.</p>
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for canopy management activities	1.1 Canopy management requirements are identified 1.2 Vine vigour and growth are assessed according to workplace procedures 1.3 Appropriate manual and/or automated canopy management techniques are selected 1.4 Equipment is confirmed as available and ready for use 1.5 Operators are instructed as required
2. Implement canopy management requirements	2.1 Canopy management activities are carried out according to vine vigour, growth guidelines and manager's instructions 2.2 Canopy management activities are monitored to confirm that performance is maintained within specification 2.3 Out-of-specification performance is identified, rectified and/or reported 2.4 Problems and anomalies are identified, corrected and/or reported
3. Record information	3.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify canopy management requirements
- select, fit and use appropriate personal protective clothing and/or equipment

- identify, rectify and/or report environmental non-compliance
- implement canopy management requirements. This may include consideration of:
 - equipment and materials required
 - personnel required
 - location
 - transport
 - timing
 - environmental operating conditions
 - other vineyard activities (e.g. spraying)
- select appropriate canopy management techniques. This will include consideration of:
 - vine vigour
 - trellis design
 - grape variety
 - quality requirements
 - climate, current and forecast weather conditions
 - vineyard terrain and aspect
 - phenological development
 - workplace procedures and manager's instructions
- monitor canopy management activities. This may include monitoring:
 - removal of unwanted growth
 - positioning of vine shoots
 - cutting procedure and quality
 - manipulation and securing of vine
 - vine damage
 - exposure of crop to sunlight
 - addition and positioning of foliage wires or shade cloth
 - correct disposal of waste
 - cleaning and storage of equipment
 - problems and anomalies
 - equipment performance and maintenance
 - team performance and progress
- take corrective action in response to out-of-specification results or non-compliance
- report and/or record problems and/or corrective actions
- maintain canopy management records according to workplace standards
- facilitate and train teams and individuals
- conduct routine maintenance of equipment according to enterprise procedures
- apply information technology systems according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor

- work cooperatively within a culturally diverse workforce.

Required knowledge include:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- basic vine physiology as it applies to:
 - water intake
 - nutrient uptake
 - photosynthesis
 - respiration, transpiration
 - translocation
- parts of the root, trunk, shoot and fruit systems of the grapevine, their role in how the vine works and their contribution to fruit quality, including:
 - buds, nodes and tendrils
 - cambium, epidermis, phloem and xylem
 - leaf blade, bract and petiole
 - bunches, berries and flowers
- vine types, their characteristics and uses, including:
 - family, genus and species
 - *Vitis vinifera* and commercial varieties
 - native species and hybrids (e.g. *labrusca*)
 - rootstocks and scion stock
- industry processes for new variety development
- annual grapevine growth stages, including:
 - budburst
 - flowering
 - veraison
 - maturity
- key grape varieties and their distinguishing features. This may include factors, such as:
 - berry and bunch characteristics
 - frost and disease resistance
 - flavour and style
- effects of vine canopy reduction and grape exposure on fruit and wine quality
- features and benefits of a range of manual and/or automated canopy management styles and techniques and their respective affect on grape quality, cropping yield and wine production requirements. This should include techniques to manage:
 - light penetration and shading
 - air circulation and disease reduction
 - phenological stages of vine development

- crop quality and quantity
- factors influencing vine vigour, including:
 - grape variety
 - trellis design
 - vine spacing
 - fertilisers
 - irrigation
 - rootstock
- key factors affecting the canopy management technique adopted. These may include:
 - climate, forecast and current weather conditions
 - vineyard aspect and terrain
 - grape variety and vigour
 - grape quality and characteristics required
 - trellis design
 - harvesting techniques
 - disease risk and occurrence
 - stage of maturity and development
- recognition of correct vine growth stages at which to carry out canopy management activities
- significance and method of monitoring canopy management activities
- safe handling of equipment
- correct operating procedures for equipment
- purpose and application of personal protective clothing and/or equipment
- Occupational health and safety (OHS) hazards and controls
- identification of common problems and anomalies
- procedures and responsibility for reporting problems
- environmental issues and controls
- cleaning and storage requirements of equipment
- Reporting and recording requirements and procedures
- team facilitation and training techniques
- routine maintenance procedures for equipment where relevant
- information technology systems where relevant.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

EVIDENCE GUIDE	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to: <ul style="list-style-type: none"> • use personal protective clothing and equipment • determine requirements for canopy management according to vine vigour, growth guidelines and manager's instructions • select canopy management techniques • coordinate team activities to implement determined canopy management techniques • address problems and anomalies • complete workplace records.
Context of and specific resources for assessment	Assessment must occur in a real or simulated workplace where the assessee has access to: <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • hydraulic or pneumatic pruners • a range of secateurs • knives • tractor • circular and hand saws • cutter bars • blades • drum pruners • mechanical leaf pluckers and wire lifters • bare hands • maintenance tools and team support equipment (e.g. toilet facilities, first aid box and spare equipment)
Unwanted growth	Unwanted growth may include:

RANGE STATEMENT	
	<ul style="list-style-type: none"> • suckers • water shoots • congested shoots • excess bunches
Canopy management systems	<p>Canopy management systems will vary with workplace requirements, but may include:</p> <ul style="list-style-type: none"> • vertically shoot positioned (VSP) • wide T • Scott Henry • single wire
Canopy management activities	<p>Canopy management activities may include:</p> <ul style="list-style-type: none"> • leaf removal • shoot removal • applying or removing shade cloth • lifting or lowering foliage wires • positioning shoots • trimming shoots • bunch thinning
Problems and anomalies	<p>Problems and anomalies include:</p> <ul style="list-style-type: none"> • signs of common pests and diseases, such as mildew, eutypa, phomopsis, boring insects, dying arm, crown gall, and diseased wood or berries • signs of trellis and/or irrigation disrepair or problems • machinery breakdown • team performance
Information systems	<p>Information systems may be:</p> <ul style="list-style-type: none"> • screen or print based and may include information technology systems, such as recording and reporting, weather forecasting, rainfall maps and infrared canopy monitoring

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG3004A Coordinate nursery activities

Modification History

This unit supersedes and is equivalent to FDFWGGCNAB Coordinate nursery activities.

September 2012: clarified pre-requisite information.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for wine grape nurseries. It covers the skills and knowledge required to coordinate nursery personnel in a range of day-to-day activities.
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Application of the Unit

Application of the unit	This unit includes allocation and monitoring of individual performance targets and requirements.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Pre requisite units	
	FDFWGG2002A Carry out potting operations
	FDFWGG2006A Obtain and process rootlings
	FDFWGG3009A Monitor and maintain nursery plants* <i>FDFWGG2007A Tend containerised nursery plants</i> <i>FDFWGG2012A Identify and treat nursery plant disorders</i>

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Prepare to coordinate nursery activities	1.1 Activity goals and performance requirements are identified and clarified 1.2 Tasks required to achieve performance requirements are identified 1.3 Personnel required are confirmed as available and having the appropriate competence 1.4 Equipment is confirmed as available and ready for use 1.5 Materials are confirmed as available and ready to meet requirements
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ELEMENT	PERFORMANCE CRITERIA
2. Coordinate nursery activities	2.1 Individual work tasks and roles are allocated to ensure activity goals and performance requirements are met 2.2 Work targets and timelines are negotiated to achieve activity goals and performance requirements 2.3 Activities are monitored to ensure compliance with workplace procedures on occupational health and safety (OHS), environmental and quality issues 2.4 Activities are monitored against timelines and performance requirements 2.5 Potential barriers to achieving targets and performance requirements are identified, rectified and/or reported
3. Complete coordination of nursery activities	3.1 Activities are monitored to ensure compliance with relevant workplace procedures on completion, shutdown and waste disposal 3.2 Work is conducted in accordance with workplace environmental guidelines 3.3 Personnel are debriefed as appropriate
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify nursery activity requirements
- confirm supply of necessary resources
- select, fit and use appropriate personal protective clothing and/or equipment
- identify, rectify and/or report environmental non-compliance
- liaise with other work areas and customers
- plan nursery activities. This may include considering:
 - personnel requirements
 - equipment and materials required
 - location

- transport
- timing
- environmental conditions
- other nursery activities
- quality and quantity requirements
- instruct individuals and/or a group
- provide feedback to individuals and/or a group
- monitor nursery activities. This may include monitoring:
 - compliance with OHS, environmental and quality procedures
 - individual and/or team performance
 - achievement of targets, timelines and performance requirements
 - own and other team members' learning needs
 - compliance with completion, shutdown and waste disposal procedures
- resolve conflicts
- take corrective action in response to out-of-specification results or non-compliance
- recognise, correct and/or report problems and anomalies
- maintain workplace records
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- workplace planning processes
- workplace activity scheduling processes
- OHS hazards and controls
- environmental issues and controls
- reporting and recording requirements and procedures
- procedures and responsibility for reporting problems and anomalies
- communication principles and strategies
- procedures for monitoring and reporting on individual and team performance
- competency identification and training arrangements
- conflict resolution, negotiation and problem-solving strategies.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to: <ul style="list-style-type: none"> • determine activities required of nursery and individuals in order to meet performance targets • allocate activities and monitor their implementation • provide leadership and instruction for nursery personnel • address performance issues • complete workplace records.
Context of and specific resources for assessment	Assessment must occur in a real or simulated workplace where the assessee has access to: <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over

EVIDENCE GUIDE	
	a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements, legislative requirements and industrial awards and agreements
Team practices	Team practices and work allocation occurs within the context of competency and licensing requirements and industrial agreements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Nursery activities	<p>Nursery activities may include:</p> <ul style="list-style-type: none"> • any activity undertaken within the wine grape nursery environment including preparing, conducting, monitoring and completing work in the establishment and care of wine grape vines
Goal and performance	Goal and performance requirements may be:

RANGE STATEMENT	
requirements	<ul style="list-style-type: none"> determined by organisation or departmental operational plans and customer requirements
Resources	Resources may include: <ul style="list-style-type: none"> personnel equipment materials
Records	Records will include: <ul style="list-style-type: none"> operational plans nursery activities personnel and maintenance records

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG3005A Perform field nursery activities

Modification History

This unit supersedes and is equivalent to FDFWGGFNAB Perform field nursery activities.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. This unit covers the skills and knowledge required to plant, maintain and process field nursery vines.
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Application of the Unit

Application of the unit	This unit includes preparation for plantings, care of young vines and preparation for transfer and transportation.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the Performance criteria describe the performance needed to

essential outcomes of a unit of competency.

demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for field nursery planting	1.1 Field nursery bed is prepared according to instructions 1.2 Field nursery maintenance infrastructure is checked to confirm readiness for use as required
2. Maintain field nursery vines	2.1 Appropriate vine protection methods are applied 2.2 Field nursery activities are carried out as instructed 2.3 Young vine growth and health are monitored according to instructions 2.4 Problems and anomalies are recognised, rectified and/or reported
3. Process field nursery rootlings for removal from nursery	3.1 Vine rootlings are undercut and lifted according to instructions 3.2 Rootlings are prepared for transport according to instructions 3.3 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify nursery requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- liaise with other work areas and customers
- prepare field nursery bed for planting. This may include:
 - herbicide treatment
 - soil cultivations
 - fertiliser additions

- planning vine planting (e.g. number of vines, area size, varietal lots, row spacing for mechanical operations and row orientation)
- application of weed matting
- positioning irrigation pipes and points
- checking readiness of maintenance infrastructure
- select and apply appropriate vine protection methods. This should include consideration of:
 - climate, weather and prevailing wind
 - vineyard pests (e.g. rabbits)
 - aspect, orientation of vineyard
 - irrigation or fertilisation schedule
 - frost incidence
- maintain and care for young vines
- monitor the health and growth of young vines. This may involve monitoring:
 - soil moisture
 - signs of disease and pests
 - water stress
 - signs of nutrient deficiency
 - growth rate
- take corrective action in response to out-of-specification growth or appearance, or non-compliance
- report and/or record corrective action as required
- identify, rectify and/or report environmental non-compliance
- use appropriate cleaning techniques
- maintain work area to meet housekeeping standards
- lift rootlings from the beds whilst ensuring minimal plant damage. This may include:
 - roots undercut adequately
 - gentle handling
- prepare rootlings for transport. This may include:
 - trimming
 - counting and bundling
 - labelling
 - grading
 - packing
- plant vines according to enterprise procedures
- take samples and conduct tests according to enterprise procedures
- conduct routine maintenance of equipment according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- purpose, requirements and procedures for nursery bed preparation
- protection and maintenance requirements of young vines
- requirements of growing vines
- common causes and signs of young vine growth disorders and corrective action required
- Occupational health and safety (OHS) hazards and controls
- correct procedures and requirements for lifting vine rootlings from the nursery bed
- preparation requirements and procedures for transporting rootlings
- storage requirements of rootlings
- procedures and responsibility for reporting problems
- environmental issues and controls
- reporting and recording requirements and procedures
- planting procedures where relevant
- sampling and testing procedures where relevant
- routine maintenance procedures for equipment where relevant.

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective equipment, MSDS and follow other specified OHS procedures • follow vine protection procedures • prepare for, implement and monitor nursery activities • prepare vine rootlings for transport • monitor the health of rootlings.

EVIDENCE GUIDE	
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements

RANGE STATEMENT	
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Bed preparation	<p>Bed preparation may include, but is not limited to:</p> <ul style="list-style-type: none"> • cultivating • fertilising • planning layout
Maintenance infrastructure	<p>Maintenance infrastructure may include:</p> <ul style="list-style-type: none"> • irrigation or fertilisation equipment and components • windbreaks
Vine protection methods	<p>Vine protection methods include:</p> <ul style="list-style-type: none"> • waxing • windbreaks • row orientation • pest control
Maintenance activities	<p>Maintenance activities include:</p> <ul style="list-style-type: none"> • irrigation • fertilising • mulching • weed and pest control
Problems and anomalies	<p>Problems and anomalies include:</p> <ul style="list-style-type: none"> • signs of pests and diseases • equipment malfunction • rogue vines
Information systems	<p>Information systems may be:</p> <ul style="list-style-type: none"> • screen or print based
Work hazards	<p>Work may involve exposure to:</p>

RANGE STATEMENT

- chemical, dangerous or hazardous substances

Unit Sector(s)**Unit sector**

Wine operations

FDFWGG3006A Coordinate hand pruning activities

Modification History

This unit supersedes and is equivalent to FDFWGGHPB Coordinate hand pruning activities.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. This unit covers the skills and knowledge required to identify and implement hand pruning requirements, including supervising a team of casual hand pruners.
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Application of the Unit

Application of the unit	Coordination skills required in the application of this unit will involve facilitating others.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Pre requisite units		
	FDFWGG2003A	Hand prune vines

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for hand pruning activities	1.1 Pruning requirements are identified 1.2 Appropriate pruning techniques are selected 1.3 Pruning equipment is confirmed as available and ready for use 1.4 Pruning equipment is set up to meet requirements 1.5 Operators are instructed as required
2. Implement hand pruning requirements	2.1 Pruning activities are monitored to confirm performance is maintained within specification 2.2 Out-of-specification performance is identified, rectified and/or reported 2.3 Vines are pruned according to crop levels, vine vigour and workplace procedures 2.4 Anomalies and problems are identified, corrected and/or reported 2.5 Work is conducted in accordance with workplace environmental guidelines
3. Record information	3.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify pruning requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- train and/or facilitate a team of hand pruners
- implement hand pruning requirements. This may include consideration of:
 - equipment and materials required
 - personnel required
 - location
 - transport
 - timing
 - environmental conditions
 - other vineyard activities (e.g. spraying)
- select appropriate pruning techniques. This will include consideration of:
 - grape variety
 - vine vigour
 - quality and yield requirements
 - climate
 - workplace procedures and manager's instructions
- monitor pruning activities. This will include monitoring:
 - selection of best possible spurs and canes
 - positioning of spurs and canes
 - clean removal of sucker shoots
 - correct quantity of spurs, rods, canes and buds left
 - cuts made correctly and cleanly
 - recognition and removal of unwanted growth
 - rolling and securing extension canes onto trellis wire as required
 - correct disposal of pruned material
 - equipment performance
 - cleaning and storage of equipment
 - team performance and progress
- identify problems and anomalies
- take corrective action in response to out-of-specification results or non-compliance
- report and/or record problems and/or corrective action
- identify, rectify and/or report environmental non-compliance
- maintain work area to meet housekeeping standards
- maintain pruning records according to workplace standards
- conduct routine maintenance of equipment according to enterprise procedures
- apply information technology systems according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- basic vine physiology, as it applies to:
 - water intake
 - nutrient uptake
 - photosynthesis
 - respiration, transpiration
 - translocation
- parts of the root, trunk, shoot and fruit systems of the grapevine, their role in how the vine works and their contribution to fruit quality, including:
 - buds, nodes and tendrils
 - cambium, epidermis, phloem and xylem
 - leaf blade, bract and petiole
 - bunch, berries and flowers
- vine types, their characteristics and uses, including:
 - family, genus and species
 - *Vitis Vinifera* and commercial varieties
 - native species and hybrids (e.g. *labrusca*)
 - rootstocks and scion stock
- industry processes for new variety development
- annual vine growth stages, including:
 - budburst
 - flowering
 - veraison
 - maturity
- key grape varieties and their distinguishing features. This may include factors, such as:
 - berry and bunch characteristics
 - frost and disease resistance
 - flavour and style
- different types of pruning and their features, benefits and effects on grape quality
- relationship between bud numbers and cropping levels and the effect on wine quality
- effects of different pruning levels on wine quality
- concept of pruning to vine vigour
- safe handling of pruning equipment
- correct operating procedures for pruning equipment
- Occupational health and safety (OHS) hazards and controls
- common problems and anomalies associated with hand pruning activities

- procedures and responsibility for reporting problems
- cleaning and storage requirements of pruning equipment
- recording requirements and procedures
- team facilitation and training techniques
- environmental issues and controls
- routine maintenance procedures for equipment where relevant
- information technology systems where relevant.

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • ensure use of personal protective clothing and equipment • determine requirements for hand pruning according to crop levels, vine vigour and workplace procedures • select hand pruning techniques • coordinate activities to implement determined hand pruning techniques • address problems and anomalies • complete workplace records.
<p>Context of and specific resources for assessment</p>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information

EVIDENCE GUIDE	
	as required <ul style="list-style-type: none"> • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	Workplace information can include: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions

RANGE STATEMENT	
	<ul style="list-style-type: none"> • verbal direction from manager, supervisor or senior operator
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • pneumatic secateurs • petrol air compressors • hydraulic snips • electronic secateurs • knives • saws • hand secateurs • maintenance tools • team support equipment (e.g. toilet facilities, first aid box, spare pruning equipment)
Pruning methods	<p>Pruning methods may include:</p> <ul style="list-style-type: none"> • spur pruning • cane pruning • rod and spur pruning • hand clean up after machine pruning
Information systems	<p>Information systems may be:</p> <ul style="list-style-type: none"> • screen or print based and may include information technology systems, such as reporting, monitoring and recording, weather forecasting and rainfall mapping systems
Problems and anomalies	<p>Problems and anomalies may include:</p> <ul style="list-style-type: none"> • dead vines • split cordon • extending cordon • poor bud position • signs of common pests and diseases, such as mildew, eutypa, phomopsis, boring insects, dying arm, crown gall or diseased wood

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG3008A Operate a mechanical harvester

Modification History

This unit supersedes and is equivalent to FDFWGGMHB Operate a mechanical harvester.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This unit covers the skills and knowledge required to identify harvesting requirements and then set up and operate a mechanical harvester to meet those requirements.
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Application of the Unit

Application of the unit	This unit applies to the operation of specialised mechanical harvesting equipment used in wine grape growing.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the Performance criteria describe the performance needed to

essential outcomes of a unit of competency.

demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for mechanical harvesting	1.1 Harvesting requirements are identified 1.2 Equipment is checked to confirm readiness for use 1.3 Equipment is set up to meet harvesting requirements
2. Operate mechanical harvester	2.1 Equipment is started up according to workplace procedures 2.2 Equipment performance is monitored to confirm performance is maintained within specification 2.3 Out-of-specification equipment performance is identified, rectified and/or reported 2.4 Vines are machine harvested according to workplace requirements 2.5 Problems and anomalies are recognised and rectified and/or reported 2.6 Equipment is maintained in good working order
3. Complete mechanical harvesting operations	3.1 Equipment is shut down according to workplace procedures 3.2 Equipment is cleaned and stored according to workplace procedures 3.3 Waste generated by both the process and cleaning procedures is collected, treated, disposed of or recycled according to workplace procedures 3.4 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

REQUIRED SKILLS AND KNOWLEDGE

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- Access workplace information to identify harvesting requirements
- Select, fit and use appropriate personal protective clothing and/or equipment
- Liaise with other work areas
- Confirm equipment status and condition
- Set up mechanical harvester to meet harvesting requirements
- Start up the mechanical harvester
- Operate a mechanical harvester according to harvesting conditions and requirements. These may include consideration of:
 - crop level
 - grape variety
 - vine age
 - row height, width and trellis design
 - slope, angle of row
 - visibility
 - other vineyard activities
- Monitor mechanical harvester operation. This will include monitoring:
 - vine damage
 - grape quality and maturity
 - harvesting effectiveness (amount of fruit left in fruiting zone)
 - matter other than grape (MOG) collected
 - hours worked and service history of machinery
 - problems and anomalies
 - climatic conditions
- Take corrective action in response to out-of-specification results or non-compliance
- Recognise problems and anomalies
- Report and/or record problems and/or corrective action taken
- Shut down equipment in response to an emergency situation
- Shut down equipment in response to routine requirements
- Identify, rectify and/or report environmental non-compliance
- Clean and store equipment
- Maintain work area to meet housekeeping standards
- Carry out routine maintenance of equipment according to enterprise procedures
- Interpret mechanical drawings according to enterprise procedures
- Use hand and power tools according to enterprise procedures
- Use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor

REQUIRED SKILLS AND KNOWLEDGE

- Work cooperatively within a culturally diverse workforce

Required knowledge

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- Effect of different climatic conditions on timing and management of harvest
- Basic vine physiology, as it applies to:
 - water intake
 - nutrient uptake
 - photosynthesis
 - respiration and transpiration
 - translocation
- Parts of the root, trunk, shoot and fruit systems of the grapevine, their role in how the vine works and their contribution to fruit quality, including:
 - buds, nodes and tendrils
 - cambium, epidermis, phloem and xylem
 - leaf blade, bract and petiole
 - bunch, berries and flowers
- Vine types, their characteristics and uses, including:
 - family, genus and species
 - *Vitis vinifera* and commercial varieties
 - native species and hybrids (e.g. *labrusca*)
 - rootstocks and scion stock
- Industry processes for new variety development
- Annual growth stages of grapevines, including:
 - budburst
 - flowering
 - veraison
 - maturity
- Key grape varieties and their distinguishing features. This may include factors, such as:
 - berry and bunch characteristics
 - frost and disease resistance
 - flavour and style
- Factors that affect grape ripening (e.g. canopy management, irrigation, grape variety and climatic conditions)
- Effect of fruit quality on wine
- Quality assurance procedures and controls
- Common problems and anomalies
- Harvesting procedures and operating parameters

REQUIRED SKILLS AND KNOWLEDGE

- Significance and method of monitoring equipment performance
- Role and operating difficulties of harvester support operator
- Purpose of mechanical harvester components
- Common faults and corrective action required
- Occupational health and safety (OHS) hazards and controls
- Environmental issues and controls
- Procedures and responsibility for reporting problems
- Cleaning and storage requirements associated with changeovers and types of shutdowns
- Emergency and routine shutdown sequences
- Recording and reporting procedures and requirements
- Cleaning and storage procedures
- Routine maintenance procedures for equipment where relevant
- Interpretation of mechanical drawings where relevant
- Procedures for use of hand and power tools where relevant

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

- Evidence of ability to:
- use personal protective clothing and equipment
 - select and confirm readiness of equipment and prepare according to instructions
 - attach and set up equipment to meet requirements
 - start and operate equipment in accordance with operation instructions and requirements of workplace and task
 - perform emergency and routine shutdowns
 - take corrective action in response to out-of-specification results or non-compliance
 - demonstrate knowledge of OHS hazards, controls

EVIDENCE GUIDE	
	<p>and emergency procedures</p> <ul style="list-style-type: none"> • sort, collect, treat, recycle or dispose of waste • record information appropriately.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	<p>This unit should be assessed together with other units of competency relevant to the function or work role.</p>
Guidance information for assessment	<p>To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

Range Statement

RANGE STATEMENT
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>

RANGE STATEMENT	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	Workplace information can include: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal directions from manager or supervisor
Equipment	Equipment includes: <ul style="list-style-type: none"> • mechanical harvesting machinery • appropriate tools
Terrain	Terrain must enable safe and effective operation of a mechanical harvester. It may include: <ul style="list-style-type: none"> • tracks • access roads • straight or curving vineyard rows • open paddocks • flat, undulating, steep, hilly or terraced land • on- and off-road environments
Conditions	Conditions must enable safe and effective operation of a mechanical harvester. These may include: <ul style="list-style-type: none"> • dry • wet • slippery • boggy • icy • foggy • windy • day and night conditions.
Confirming equipment status	Confirming equipment status involves: <ul style="list-style-type: none"> • checking that all safety standards and pre-start requirements are met and that equipment is

RANGE STATEMENT	
	operational
Information systems	Information systems may be: <ul style="list-style-type: none"> • print or screen based
Problems and anomalies	Problems and anomalies may include: <ul style="list-style-type: none"> • adverse harvesting conditions • diseased, immature, over-ripe or rotten fruit • operating hazards, such as broken trellis and wires • MOG • equipment malfunction or breakdown
Grapes	Grapes may vary according to: <ul style="list-style-type: none"> • grape variety • crop quality • quantity • trellis systems • collection procedures

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG3009A Monitor and maintain nursery plants

Modification History

This unit supersedes and is equivalent to FDFWGGMNPB Monitor and maintain nursery plants.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for wine grape nurseries. It covers the skills and knowledge required to monitor and maintain containerised nursery plants.
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Application of the Unit

Application of the unit	This unit includes maintaining the plant environment to ensure it supports optimum growth and health and meets stock requirements.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Pre requisite units		
	FDFWGG2007A	Tend containerised plants
	FDFWGG2012A	Identify and treat nursery plant disorders

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor environmental parameters	1.1 Environmental parameters are monitored against the production plan and according to workplace procedures 1.2 Environmental parameters are altered to meet the needs of the plants and according to workplace procedures
2. Determine daily water requirements	2.1 Plant water needs are determined according to workplace procedures 2.2 Water is applied according to the needs of the plants and workplace procedures 2.3 Water requirements are monitored according to workplace procedures
3. Implement treatments to promote plant growth	3.1 Potting media is tested to ensure specifications are met 3.2 Overall health of plants is monitored according to workplace procedures 3.3 Plant treatments are implemented according to production plans and workplace procedures 3.4 Problems and anomalies are identified, rectified and/or reported according to workplace procedures
4. Monitor the dispatch of stock	4.15 Availability of stock and timing of dispatch is confirmed with customers according to workplace procedures 4.2 Plants are prepared for dispatch in line with customer requirements 4.3 Stock is checked to ensure it meets quality specifications 4.4 Orders are checked against stock being dispatched to ensure

ELEMENT	PERFORMANCE CRITERIA
	compliance
5. Record information	5. Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information required to monitor and maintain nursery plants
- liaise with other work areas and customers
- select, fit and use appropriate personal protective clothing and/or equipment
- identify potential and existing hazards in the work area
- identify, rectify and/or report environmental non-compliance
- monitor work areas to ensure they meet workplace housekeeping standards
- monitor work area to ensure they meet workplace hygiene standards. This may include:
 - removing weeds
 - removing dead or diseased plant materials
 - washing work area on transfer of plants
 - disinfecting tools, equipment and work areas
 - using foot baths on entry to different work areas
- identify, rectify and/or report problems and anomalies
- implement safe work procedures to minimise hazards
- maintain workplace records
- maintain irrigation systems. This may include:
 - fixing blockages
 - servicing irrigation system components
 - identifying and reporting faults in the irrigation system
 - fixing leaking heads and hoses
- monitor water requirements. This may include:
 - using soil moisture devices
 - checking plants for physical signs of water stress or waterlogging
- test potting media. This may include identifying:
 - pH
 - drainage

- aeration
- salinity
- nitrate levels
- water repellence
- monitor health of the vines
- apply treatments to vines. These may include:
 - fungicides
 - fertilisers
 - insecticides
 - hormones
 - pruning
 - hardening off
 - irrigation
- monitor and/or prepare stock for dispatch. This may include:
 - labelling containers
 - checking orders against stock prepared
 - hydrating stock
- prepare, mix and use chemicals as required
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- basic vine physiology, as it applies to:
 - transpiration
 - water intake
 - nutrient uptake
 - photosynthesis
 - respiration
 - translocation
- parts of the root, trunk, shoot and fruit systems of the grapevine, their role in how the vine works and their contribution to fruit quality, including:
 - buds, nodes and tendrils
 - cambium, epidermis, phloem and xylem
 - leaf blade, bract and petiole
 - bunch, berries and flowers

- industry processes for new variety development
- key grape varieties and their distinguishing features. This may include factors, such as:
 - berry and bunch characteristics
 - frost and disease resistance
 - flavour and style
- annual grapevine growth stages, including:
 - budburst
 - flowering
 - veraison
 - maturity
- methods of calculating daily water needs
- methods for monitoring water use
- relationship between water needs of nursery plants and environmental parameters
- characteristics of various types of potting media
- tests to determine quality of potting media
- principles of nursery hygiene
- optimum growing conditions for plants in a nursery
- quality parameters for a range of nursery plants
- symptoms of unhealthy plants
- treatments required by plants at different growth stages and environmental parameters
- packing, dispatch and handling techniques of nursery plants
- Occupational health and safety (OHS) hazards and controls
- environmental issues and controls
- reporting and recording requirements and procedures
- procedures and responsibility for reporting problems and anomalies

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate</p>	<p>Evidence of ability to:</p>

EVIDENCE GUIDE	
competency in this unit	<ul style="list-style-type: none"> • use personal protective equipment, MSDS and follow other specified OHS procedures • identify environmental factors on plant growth and health • monitor and control application of water and special treatments to meet production outcomes • identify and address anomalies and problems • maintain stock levels to meet requirements • prepare stock for dispatch • complete documentation.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	<p>This unit should be assessed together with other units of competency relevant to the function or work role.</p>
Guidance information for assessment	<p>To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • product labels • integrated pest management (IPM) programs • verbal directions from manager, supervisor, or senior operator
Nursery environment	<p>Nursery environment may include:</p> <ul style="list-style-type: none"> • glasshouses • shade houses • field nurseries • hardening-off areas
Environmental parameters	<p>Environmental parameters may include:</p> <ul style="list-style-type: none"> • light • temperature • humidity • wind
Crop water needs	<p>Crop water needs are determined by:</p> <ul style="list-style-type: none"> • using water monitoring devices or physical observation
Problems and anomalies	<p>Problems and anomalies may include:</p> <ul style="list-style-type: none"> • evidence of pests and diseases

RANGE STATEMENT	
	<ul style="list-style-type: none"> • insufficient new roots • insufficient number of new shoots • weak graft union • signs of dehydration • changes in environmental parameters • poor equipment performance
Stock	Stock may include: <ul style="list-style-type: none"> • cuttings and rootlings
Records	Records will include: <ul style="list-style-type: none"> • date • environmental parameters • treatments applied • rate of treatments • name of operator • dispatch records

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG3010A Implement a soil management program

Modification History

This unit supersedes but is not equivalent to FDFWGG3010B Implement a soil management program.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. This unit covers the skills and knowledge required to monitor soil requirements and implement and evaluate a soil management program.
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Application of the Unit

Application of the unit	The application of this unit involves consultation with the manager and may require supervision of others in the implementation process.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		
	FDFWGG2018A	Operate vineyard equipment
	FDFWGG3001A	Apply chemicals and biological agents

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor vineyard soil management requirements	1.1 Vineyard soil is monitored according to workplace procedures 1.2 Results are interpreted correctly 1.3 Appropriate soil management activities are identified and recommended
2. Implement soil management program	2.1 Resources are coordinated and personnel briefed to deliver requirements 2.2 Agreed soil management program is implemented
3. Evaluate effectiveness of soil management activities	3.1 Vineyard is monitored to evaluate effectiveness of activities 3.2 Surrounding areas are monitored to evaluate environmental impact of soil management activities
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify soil management requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- liaise with other work areas
- consult with appropriate senior personnel
- apply sampling techniques
- conduct routine tests
- monitor the vineyard and interpret the results to identify vineyard soil management requirements. This may include monitoring:
 - soil moisture content
 - watertable level
 - weed population
 - signs of vine nutrient deficiencies
 - climatic conditions
 - cover crop practices
 - soil analyses (e.g. pH and salinity)
 - evidence of hard pans
 - soil texture
 - vine root distribution
 - nutrient levels in plant and soil
 - irrigation water quality
 - climatic conditions
 - erosion risk
 - soil management history
 - growth of mid-row sward
- calculate application rates for soil addition requirements (e.g. fertilisers and ameliorants)
- present and justify recommendations to senior personnel
- implement the soil management program. This will include consideration of:
 - resources, including operators with appropriate skills
 - equipment availability and capability
 - materials and chemicals
 - maintenance programs and supplies
 - specific needs of individual blocks
 - environmental conditions
 - other vineyard activities
- instruct operators as required
- monitor soil management activities. This will include monitoring:
 - operator performance
 - operating conditions
 - operating results
 - material supplies

- equipment performance
- take corrective action in response to out-of-specification results or non-compliance
- report and/or record problems and/or corrective action
- identify, rectify and/or report environmental non-compliance
- maintain workplace records
- maintain work area to meet housekeeping standards
- report and/or record problems according to instructions
- plan and organise
- supervise operators according to enterprise procedures
- apply information technology systems according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- ideal soil environment for vines plus specific requirements of grapes grown
- soil management techniques and their affect on soil, vine growth, cropping levels and wine quality
- visual signs of vine nutrient deficiencies
- sampling techniques and procedures
- routine testing techniques and procedures
- interpretation of routine tests
- Occupational health and safety (OHS) hazards and controls
- environmental issues and controls
- procedures and responsibility for reporting problems
- resource requirements and availability
- reporting and recording requirements and procedures
- consultation requirements and procedures
- supervision techniques where relevant
- information technology systems where relevant
- resources required for assessment where relevant

Evidence Guide

RANGE STATEMENT
The range statement relates to the unit of competency as a whole. It allows for different work

RANGE STATEMENT	
environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	Workplace information may include: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • soil management programs • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal directions from manager or supervisor
Monitoring activities	Monitoring activities may include: <ul style="list-style-type: none"> • drainage • soil moisture, pH and texture • watertable levels • rainfall • vine and soil nutrient deficiencies • weeds • air temperatures
Area management	Area managed may not be limited to the area under vines. Adjacent or ecologically linked landscapes may require management or consideration, and may include: <ul style="list-style-type: none"> • woodlots • seepage areas • waterways • landcare sites • revegetation sites • windbreaks • neighbouring vineyards and other primary production
Soil management activities	Soil management activities may include, but are not limited to: <ul style="list-style-type: none"> • the addition of ameliorants and fertilisers

RANGE STATEMENT	
	<ul style="list-style-type: none"> • cover cropping • mulching • cultivating • slashing • tilling • ploughing • weeding • spraying • frost management
Information systems	Information systems may be: <ul style="list-style-type: none"> • print or screen based

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Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	Workplace information may include: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • soil management programs • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal directions from manager or supervisor
Monitoring activities	Monitoring activities may include: <ul style="list-style-type: none"> • drainage

RANGE STATEMENT	
	<ul style="list-style-type: none"> • soil moisture, pH and texture • watertable levels • rainfall • vine and soil nutrient deficiencies • weeds • air temperatures
Area management	<p>Area managed may not be limited to the area under vines. Adjacent or ecologically linked landscapes may require management or consideration, and may include:</p> <ul style="list-style-type: none"> • woodlots • seepage areas • waterways • landcare sites • revegetation sites • windbreaks • neighbouring vineyards and other primary production
Soil management activities	<p>Soil management activities may include, but are not limited to:</p> <ul style="list-style-type: none"> • the addition of ameliorants and fertilisers • cover cropping • mulching • cultivating • slashing • tilling • ploughing • weeding • spraying • frost management
Information systems	<p>Information systems may be:</p> <ul style="list-style-type: none"> • print or screen based

Unit Sector(s)

Unit sector	Wine operations
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FDFWGG3011A Perform shed nursery activities

Modification History

This unit supersedes and is equivalent to FDFWGGSNAB Perform shed nursery activities.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. It covers the skills and knowledge required to treat and prepare vine cuttings and freshly dug rootlings for sale or planting in the vineyard.
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Application of the Unit

Application of the unit	This unit includes preparation for plantings, treating and callusing cuttings, care of rootlings and preparation for transfer and transportation.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare cuttings for callusing	<p>1.1 Cuttings are counted, bundled and labelled according to instructions as required</p> <p>1.2 Cuttings are chemically treated according to instructions</p> <p>1.3 Cuttings are stored according to instructions</p>
2. Prepare and maintain callusing environment	<p>2.1 Sand bed or callusing room is prepared according to workplace procedures</p> <p>2.2 Cuttings are placed into callusing environment according to instructions</p> <p>2.3 Optimum callusing environment is maintained</p>
3. Prepare rootlings for customer or planting	<p>3.1 Rootlings are trimmed, graded, packed and stored according to instructions</p> <p>3.2 Waste is collected and disposed of according to workplace procedures</p> <p>3.3 Problems and anomalies are recognised, rectified and/or reported</p> <p>3.4 Work is conducted in accordance with workplace environmental guidelines</p>
4. Record information	<p>4.1 Workplace information is recorded in the appropriate format</p>

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify nursery requirements

- select, fit and use appropriate personal protective clothing and/or equipment
- liaise with other work areas and customers
- count, bundle and label cuttings as required
- treat cuttings as required prior to callusing. This may include:
 - fungicide treatment
 - re-hydration
 - scoring
 - root promoter treatment
 - cutting just below basal bud
 - assimilation after cool storage
- store cuttings. This may include maintaining and monitoring cold storage facilities
- prepare sand bed or callusing room. This may include:
 - packing sand or vermiculite
 - lining boxes
 - ensuring heaters and ventilators are working correctly to required temperature
- plant or place cuttings in callusing environment. This may include:
 - feeling into ground or sand
 - packing into boxes with vermiculite
 - watering in
 - correct number of cuttings per box
 - spacing (e.g. not too tight)
 - correct way up (e.g. basal end at bottom)
 - arranging according to variety, clone and source
 - labelling and mapping of beds
 - adding hormone mixes
- maintain optimum callusing environment. This will include consideration of:
 - temperature
 - relative humidity
 - moisture levels of growing medium
 - weed and pest prevention
- trim rootlings (top growth and roots) ready for planting
- grade rootlings according to workplace or customer requirements and standards
- pack rootlings. This should include consideration of:
 - customer requirements
 - maintenance of rootling health
 - minimisation of vine damage
 - mode of transport
 - destination time
 - storage time and method
 - prevention of dehydration

- recognise problems and anomalies with vines, equipment and materials
- take corrective action in response to out-of-specification results, activity or non-compliance
- report and/or record problems and/or corrective action
- identify, rectify and/or report environmental non-compliance
- collect, sort, grade, treat and/or dispose of waste as required
- handle cuttings or rootlings to minimise damage
- select and operate equipment as required
- select and use materials as required
- maintain work area to meet housekeeping standards
- clean equipment as required
- prepare and mix chemicals as required
- conduct routine maintenance of equipment according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- common features of healthy vine cuttings or rootlings. This may include:
 - thickness of original cane
 - no evidence of pests and diseases
 - number, strength and distribution of new roots
 - number, maturity and distribution of shoots
 - visually complete and robust graft union
- common features of unhealthy vine cuttings or rootlings. This may include:
 - galls on stem (e.g. crown gall)
 - galls on roots (e.g. nematodes)
 - no shoots or roots
 - damaged or destroyed buds
 - excessive disease staining or spots on canes
 - immature wood
 - shoots on incorrect nodes
 - faulty or broken graft unions
 - too few or unevenly distributed root development
- pre-callusing treatment requirements
- purpose and benefit of treatments
- storage requirements of cuttings prior to callusing
- preparation requirements of callusing environment

- callusing options (e.g. features, pros and cons)
- optimum callusing environment and its effect on the vine cutting
- common problems that occur during callusing and how they should be resolved (e.g. uneven callusing or evidence of dehydrated cuttings on arrival)
- preparation requirements for rootlings and procedures for sales or transfer to vineyard
- package or storage requirements and procedures for rootlings ready for sale or transfer
- factors that influence how a cutting should be graded and why
- reasons for specific requirements, for example:
 - rootling preparation
 - packing preparation
 - packaging and storage requirements
- waste disposal requirements and procedures
- reporting and recording requirements and procedures
- safe handling of chemicals
- equipment operation requirements and procedures
- Occupational health and safety (OHS) hazards and controls
- procedures and responsibilities for reporting problems
- environmental issues and controls
- cleaning requirements and procedures for work area and equipment. This should include additional considerations when cleaning between batches and varieties
- safe preparation and mixing of chemicals
- routine maintenance procedures for equipment where relevant.

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective equipment, MSDS and follow other specified OHS procedures • conduct cutting and callusing activities • monitor the health of and tend rootlings

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • prepare for, implement and monitor nursery activities • prepare vine rootlings for transport • maintain nursery environment to optimise plant health • complete documentation.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with

RANGE STATEMENT	
training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	Workplace information can include: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Rootlings	Rootlings may include: <ul style="list-style-type: none"> • those developed from cuttings in a sand bed or callusing room • those freshly dug from a field nursery
Equipment	Equipment may include: <ul style="list-style-type: none"> • secateurs • personal protective clothing and/or equipment • bins • boxes • spades • trowels • watering or irrigating equipment • heating equipment • packing machine • counting machine
Materials	Materials may include: <ul style="list-style-type: none"> • string • labels • chemicals • sand • wax

RANGE STATEMENT	
Problems and anomalies	Problems and anomalies may include: <ul style="list-style-type: none"> evidence of nematodes, crown gall, dehydration, infection, physical damage and graft union failure
Facilities	Facilities may include: <ul style="list-style-type: none"> cold storage callusing room hot beds sand storage bins water fungicide treatment areas storage bins or tanks soakage tanks glasshouses
Work hazards	Work may involve exposure to: <ul style="list-style-type: none"> chemical, dangerous or hazardous substances

Unit Sector(s)

Unit sector	Wine operations
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FDWGG3013A Operate spreading and seeding equipment

Modification History

This unit supersedes and is equivalent to FDFWGGSSSEB Operate spreading and seeding equipment.

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. It covers the skills and knowledge required to operate spreading and seeding equipment.
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Application of the Unit

Application of the unit	This unit applies to the operation of spreading and seeding equipment used in wine grape growing. It includes the ability to attach, set up and detach equipment as required. The equipment only includes that which requires calibration. Spreading and seeding activities may include planting cover crops, deep incorporation of ameliorants and fertilising.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		
	AHCMOM202 A	Operate tractors

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare equipment for operation	1.1 Requirements are interpreted and confirmed 1.2 Materials are confirmed as available to meet requirements 1.3 Materials are prepared to meet requirements 1.4 Equipment is checked to confirm readiness for use 1.5 Equipment is attached and set up to meet application requirements
2. Operate equipment	2.1 Equipment is started up according to workplace procedures 2.2 Equipment is operated according to workplace procedures 2.3 Equipment performance is monitored to confirm performance is maintained within specification 2.4 Out-of-specification equipment performance is identified, rectified and/or reported 2.5 Materials are applied according to instructions 2.6 Problems and anomalies are recognised, rectified and/or reported
3. Shut down equipment	3.1 Equipment is shut down according to workplace procedures 3.2 Equipment is cleaned and stored according to workplace procedures 3.3 Waste generated by the process is collected, treated, disposed of or recycled according to workplace procedure 3.4 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access and interpret workplace information to identify seeding and spreading requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- liaise with other work areas
- select appropriate equipment for the task
- confirm equipment status and condition. This may include checking:
 - belts and chains
 - lubricants
 - hydraulics
 - air intake
 - tyre pressure and wear
 - wear and tear
- attach, set up and calibrate equipment to meet application requirements
- select, prepare and load materials according to requirements
- start up equipment
- operate equipment to meet operating instructions. This should include:
 - driving forward and reversing
 - operating in confined spaces
 - operating amongst other vineyard activities and a variety of conditions as required
- monitor equipment performance and application rates. This may include monitoring:
 - status and condition
 - handling and stopping
 - ground speed
 - actual versus expected usage of materials
 - ground coverage
 - blockages
 - environmental operating conditions
- apply materials according to instructions. This may include:
 - correct variety or type of seed and/or fertiliser
 - correct soil ameliorant and/or treatment
 - application rate

- volume
- application depth
- density
- coverage
- recognise equipment performance problems and amend and/or report as instructed
- handle hazardous materials according to occupational health and safety (OHS) requirements
- shut down equipment in response to an emergency situation
- shut down equipment in response to routine shutdown requirements
- collect, sort, treat, dispose of and/or recycle waste
- identify, rectify and/or report environmental non-compliance
- clean equipment
- prepare equipment for storage
- store equipment according to workplace standards
- maintain work area to meet housekeeping standards
- maintain workplace records
- conduct routine maintenance of equipment according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge includes:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- the purpose and application of spreading and seeding operations within the vineyard growing system. This may include the purpose and application of:
 - soil ameliorants (e.g. pH, texture, and mulching treatments, e.g. structure)
 - inter-row cropping species and varieties
 - inter-row cropping practices and techniques
 - inorganic and organic fertilising materials
- process specifications, procedures and operating parameters
- purpose and operation of equipment and instrumentation components
- common causes of variation and corrective action required
- required weather conditions for activity
- soil characteristics as they apply to spreading and seeding operations. These may include:
 - structure
 - compaction
 - condition
 - texture
 - fertility and toxicity

- moisture (e.g. too dry or waterlogged)
- significance and methods of monitoring equipment performance
- OHS hazards and controls
- material handling requirements
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- reporting and recording requirements and procedures
- environmental issues and controls
- cleaning requirements and procedures associated with changeovers and types of shutdowns
- storage requirements associated with temporary or seasonal breaks in activity
- storage procedures for equipment and materials
- shutdown sequence
- routine maintenance procedures for equipment where relevant.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective clothing and equipment • confirm availability of specified materials and prepare according to instructions • select and confirm status and suitability of equipment • attach, set up and calibrate equipment to meet application requirements • start and operate equipment in accordance with operation instructions and requirements of workplace and task • monitor spreading or seeding operation to achieve specified result • perform emergency and routine shutdowns • take corrective action in response to

EVIDENCE GUIDE	
	<p>out-of-specification results or non-compliance</p> <ul style="list-style-type: none"> • demonstrate knowledge of ohs hazards, controls and emergency procedures • sort, collect, treat, recycle or dispose of waste • record information appropriately.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required • documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with</p>

RANGE STATEMENT	
training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	Workplace information can include: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules • instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Spreading and seeding activities	Spreading and seeding activities may include: <ul style="list-style-type: none"> • planting cover crops • deep incorporation of ameliorants and fertilising
Equipment	Equipment may include: <ul style="list-style-type: none"> • seeders • spreaders (e.g. fertiliser and mulch)
Terrain	Terrain must enable safe and effective operation of equipment. It may include: <ul style="list-style-type: none"> • tracks • access roads • vineyard rows • open paddocks • flat, undulating, steep, hilly or terraced land • on- and off road environments
Conditions	Conditions must enable safe and effective operation of equipment. These may include: <ul style="list-style-type: none"> • dry • wet • slippery • boggy • icy

RANGE STATEMENT	
	<ul style="list-style-type: none"> • foggy • windy • day and night conditions
Loads	Loads, where applicable, may range from: <ul style="list-style-type: none"> • full to empty as required
Confirming equipment status	Confirming equipment status involves: <ul style="list-style-type: none"> • checking that all safety standards and pre-start requirements are met and equipment is operational • checking the operation and calibration of measuring instrumentation
Information systems	Information systems may be: <ul style="list-style-type: none"> • print or screen based
Materials	Materials may include: <ul style="list-style-type: none"> • organic and inorganic fertilisers • gypsum • lime • seed • ameliorants (e.g. grape marc) • mulch (e.g. straw)
Waste	Waste may include: <ul style="list-style-type: none"> • empty containers • bags • packaging materials • unused materials
Problems and anomalies	Problems and anomalies may include: <ul style="list-style-type: none"> • equipment blockages • uneven surfaces • size and flow of materials being applied
Work hazards	Work may involve exposure to: <ul style="list-style-type: none"> • chemical, dangerous or hazardous substances

Unit Sector(s)

Unit sector	Wine operations
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Custom Content Section

Not applicable.

FWPCOT2236 Fall trees manually (basic)

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT2236 Fall trees manually (basic), which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to assess and manually fall small trees with a low level of complexity and to complete operator maintenance.

Basic trees typical to the scope of this unit may include the following characteristics:

- lean and distribution of the crown weight does not create a complex situation to assess or fell
- small dimensions relative to local forest size distribution
- no excessive lean
- no visible damage or defect
- species that are not prone to free splitting and adverse reactions during felling
- single stem or non-complex multi-stems
- diameter of tree is less than chainsaw bar length
- grown on terrain and slope that does not add significant complexity to the operation

The unit applies to those in a forest, agricultural, local council, emergencies services and other government agency environment. With the exception of minor forest produce, it is not relevant to commercial harvesting operations.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states & territories at the time of publication, and may differ according to jurisdiction.

Pre-requisite Unit

Nil

Unit Sector

Common Technical

Elements and Performance Criteria

ELEMENTS <i>Elements describe the essential outcomes.</i>	PERFORMANCE CRITERIA <i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for felling	1.1 Identify and adhere to work specifications and site environmental protection measures relevant to felling basic trees in line with organisational requirements and relevant regulations 1.2 Review and check job requirements with appropriate personnel 1.3 Select tools and equipment appropriate to work requirements and check for operational effectiveness according to manufacturer recommendations 1.4 Identify trees to be retained and felled 1.5 Establish and maintain communication with others according to WHS requirements
2. Prepare for felling	2.1 Review location and stability for conditions likely to affect felling activities 2.2 Identify and report site environmental conditions to appropriate personnel 2.3 Identify and control potential and existing risks and hazards 2.4 Monitor and exclude location and activity of other personnel on the work site
3. Assess tree and plan felling	3.1 Assess limitations of own skills in safely felling trees, identify trees considered outside own skill level and seek assistance from appropriate personnel where required 3.2 Confirm that tree is safe to fell 3.3 Visually assess tree for felling characteristics, defects and stresses 3.4 Assess and check required falling direction and possible deviation 3.5 Plan sequence of cuts to fell tree according to standard felling procedures 3.6 Select suitable escape route and clear of growth and other obstacles according to environmental care principles and statutory requirements
4. Apply tree felling techniques	4.1 Fell individual trees using selected cutting techniques according to WHS and job requirements 4.2 Adjust cutting technique in response to movement and condition of tree

ELEMENTS	PERFORMANCE CRITERIA
	<p>4.3 Use planned escape route when tree starts to fall and monitor the fall and movement of tree on ground until determined stable</p> <p>4.4 Delay movement back into the felling area until all tree material, including from adjacent tree crowns, has fallen</p> <p>4.5 Identify and implement procedures for removal of trees that are hung-up</p> <p>4.6 Dispose of waste materials in line with environmental and operational requirements</p>
5. Maintain equipment	<p>5.1 Inspect equipment on completion of trimming and cutting activities</p> <p>5.2 Identify damaged saws and cutting attachments for repair or replacement according to organisational requirements and manufacturer recommendations</p> <p>5.3 Remove, clean, adjust or replace chain and other components according to manufacturer recommendations</p> <p>5.4 Maintain tools and equipment according to WHS requirements and manufacturer recommendations</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.	
Numeracy skills to:	<ul style="list-style-type: none"> • estimate tree dimensions, including height, length, diameter and volume • complete routine calculations and report on size, length, diameter of felled trees.
Oral communication skills to:	<ul style="list-style-type: none"> • select and use appropriate spoken communication strategies with work colleagues and other personnel on site when felling trees • interpret hand signals with other operators to ensure safe tree felling
Reading skills to:	<ul style="list-style-type: none"> • interpret: <ul style="list-style-type: none"> • workplace health and safety and other organisational procedures • work orders • manufacturers' maintenance recommendations.
Writing skills to:	<ul style="list-style-type: none"> • complete accurate basic records for tree felling process, equipment faults and maintenance requirements.

Planning and organising skills to:	<ul style="list-style-type: none">• identify an unsafe tree• efficiently and logically sequence the stages of preparation for and felling of trees using work order to guide activities.
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Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT2236 Fall trees manually (basic)

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT2236 Fall trees manually (basic)

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPICOT2236 Fall trees manually (basic), which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- comply with applicable federal, state or territory legislative and regulatory requirements and codes of practice including WHS, environmental and organisational policies and procedures relevant to felling trees at a basic level
- comply with organisational policies and procedures relevant to felling trees manually at a basic level
- comply with applicable licensing or certification requirements relevant to felling trees manually
- effectively communicate and use safe working practices, including maintaining an awareness of activity by other personnel in the work area
- assess site conditions, by applying environmental protection measures, detecting hazards and own skill level for felling trees at a basic level
- conduct a tree assessment
- identify structural defects and stresses in trees and the impact on felling, including exclusion of trees from hand felling due to hazardous and difficult situations for assessment, monitoring and safe falling including a crown that contains dead or broken material, entanglement or malformation
- plan a felling sequence for individual trees and preparing surroundings including escape route

- fell basic trees using a appropriate cuts safely without damage to personnel, equipment and surrounding environment
- identify trees that are hung up
- select, prepare and maintain chainsaw equipment including recognising faults, problems and malfunctions
- assess, plan and safely operate chainsaw equipment to manually fell trees at a basic level in forest, rural and community environments
- use tree felling techniques including scarf cutting , back cutting to provide hinge-wood and the use of wedges to assist in controlling falling direction.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- Workplace health and safety (WHS) requirements including:
 - PPE and clothing
 - safety equipment
 - first aid equipment
 - firefighting equipment
 - hazard and risk control procedures
 - fatigue management procedures
 - appropriate signage
 - elimination of hazardous materials and substances procedures
 - safe forest practices, including required actions relating to fire
 - techniques for manual handling, including shifting, lifting and carrying
- types and purposes of cuts to fell trees, including scarf cutting and back cutting to provide hinge-wood and maintain control of tree
- typical tree defects and how these affect tree felling activities:
 - shakes
 - insect defects
 - knots and resin pockets
 - pipe
 - drysides
- identifying trees:
 - that contain hazards and are deemed unsafe to fell
 - considered outside own skill level
 - trees where cuts made may lead to loss of control of tree in felling
- hazards and related risks and the impact on felling trees of:
 - uneven and unstable terrain
 - unsafe trees
 - fires
 - overhead and underground services

- excavations
- traffic
- structures
- hazardous materials
- insects and animals
- other personnel and machinery
- methods used to remove trees that are hung up and procedures for removal
- methods for assessing chain condition
- environmental protection measures to follow when felling trees related to:
 - native vegetation
 - soil and water
 - heritage and archeological artefacts
 - flora and fauna
 - geomorphologic features
 - landscape
 - external site pollution
 - recreational opportunities
 - regeneration opportunities
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing timber and other waste
- key features of these varying environmental conditions and their effects on basic tree felling activities:
 - general forest lean
 - ground growth
 - ground hazards and obstacles
 - ground slope
 - gullies
 - presence and density of seed and habitat trees
 - water courses
 - wet and adverse weather conditions
 - wind speed and direction
- the use of types of tools and equipment for felling trees manually, and the procedures for their safe use, operation and maintenance including:
 - warning signs
 - chainsaw and components
 - PPE and clothing
 - first aid equipment
 - maintenance requirements
 - support tools.

Assessment Conditions

The following resources must be made available:

- workplace location or simulated workplace of a forest environment that contains small trees with a low level of falling complexity
- PPE and clothing including:
 - safety helmet
 - safety gloves
 - protective footwear
 - eye protection
 - hearing protection
 - high visibility clothing
 - leg protection (trousers or chaps)
- materials and equipment including:
 - warning signs
 - chainsaw and components
 - first aid equipment
 - maintenance tools and equipment
 - support tools
 - manufacturers' instructions for use and maintenance of equipment
 - radio or communication device
 - fire fighting equipment (if prescribed)
- specifications and work instructions, including
 - information and instructions relevant to tree-felling operations, including processing location details and trees to be felled and retained
 - policy and procedures for work health and safety (WHS)
 - risk assessment plan
 - general and specific environmental requirements
 - relevant state or territory logging code of practice
 - emergency and evacuation procedures
 - fire protocols
- relevant personnel for the purposes of communicating information

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPCOT2237 Maintain chainsaws

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT2237A Maintain chainsaws, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to maintain engine or electrically operated hand-held chainsaws. It includes sharpening chains and completing routine and frequently required service requirements as well as periodic servicing. Work is completed in a variety of work settings including a forest environment, agricultural, workshop, arboretum and horticultural settings.

The unit applies to chainsaw operators.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Common Technical

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for chainsaw maintenance	1.1 Select appropriate personal protective, maintenance and repair equipment and check for operational effectiveness in line with manufacturer's recommendations.

ELEMENTS	PERFORMANCE CRITERIA
	1.2 Plan repair and maintenance activities in line with manufacturer's instructions and recommendations and organisational requirements
2. Complete chainsaw maintenance	2.1 Follow organisational safety procedures to lock out equipment. 2.2 Complete routine and frequently required service requirements on chainsaws in line with manufacturer's instructions and organisational requirements 2.3 Complete periodic service requirements on chainsaws in line with manufacturer's recommendations and organisational requirements 2.4 Check chain for bluntness or damage. 2.5 Remove, sharpen, adjust and replace chain and other components in line with manufacturer's recommendations. 2.6 Identify, diagnose, tag and report chainsaw faults, malfunctions or irregular operation for repair or replacement. 2.7 Reassemble serviced chainsaw components, check for operational effectiveness, tag and store.
3. Complete maintenance records and clean up	3.1 Complete, process and maintain records and reports in line with organisational procedures. 3.2 Clear and clean work area and tools, and dispose of and recycle waste materials in line with environmental protection practices.

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	<ul style="list-style-type: none"> • calculate ratios and measure quantities of oils and fuels.
Reading skills to:	<ul style="list-style-type: none"> • interpret: <ul style="list-style-type: none"> • workplace health and safety procedures • work orders • manufacturer's instructions and maintenance recommendations.
Writing skills to:	<ul style="list-style-type: none"> • complete basic accurate records of repairs, maintenance activities and equipment faults.
Planning and organising skills to:	<ul style="list-style-type: none"> • efficiently and logically sequence stages of repair and maintenance work.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT2237A Maintain chainsaws

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT2237 Maintain chainsaws

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPICOT2237A Maintain chainsaws, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement. This is the first release of this unit in the new standards format.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- complete these routine and frequently required service requirements on chainsaws in line with manufacturer's instructions:
 - removing, checking and cleaning air filter for damage and penetration of foreign material
 - cleaning saw body, air intake vents and cooling fins
 - cleaning chain brake
 - inspecting chain and guide bar
 - checking screws and nuts for tightness
 - checking safety devices
 - filling fuel tanks and chain oil tanks
- complete these types of periodic service requirements on chainsaws in line with manufacturer's instructions:
 - replacing drive sprocket
 - cleaning or replacing and setting spark plug
 - checking and replacing fuel filter
 - checking chain brake, oil system, flywheel assembly, anti-vibration system, muffler and spark arrestor
 - inspecting and replacing starter cord and starter spring

- matching pitches and gauges of cutting components
- dressing and cleaning cutter bar
- cleaning fly wheel
- removing and cleaning exhaust and fire screen
- complete these activities to check and sharpen chain saw chains in line with manufacturer's instructions:
 - inspecting and adjusting chain
 - inspecting and replacing chain that is worn, damaged or incorrectly sharpened
 - sharpening chain types and setting of depth gauges.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- types, purpose, features and operation of chainsaws for which repairs are completed
- features and names of different parts of chainsaws
- purpose, features and operation of tools and equipment used to repair and maintain chainsaws
- specifications and types of bars, chains and sprockets
- differences between frequent and periodic chainsaw maintenance requirements
- techniques for:
 - removing chains and other chainsaw components
 - assessing chain condition
 - sharpening chains to specified requirements
 - reassembling chainsaw components
- hazards for maintaining chainsaws and methods to minimise associated risks:
 - loud noise and exhaust fumes
 - mechanical vibration
 - handling hazardous substances
 - cuts and hot surfaces
 - rotating parts
- organisational procedures specific to repairing and maintaining chainsaws:
 - workplace health and safety with particular emphasis on equipment lock out and use of personal protective equipment
 - communication reporting lines
 - recording and reporting repairs, maintenance activities and equipment faults
- environmental protection practices for repairing and maintaining chainsaws:
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing materials
 - disposing of hazardous substances.

Assessment Conditions

The following resources must be made available:

- engine or electrically operated hand-held chainsaws
- tools and equipment used to repair and maintain chainsaws
- consumable chainsaw parts, oil and fuel
- personal protective equipment suitable for repairing and maintaining chainsaws including:
 - Safety boots
 - Safety helmet
 - Cut resistant leg protection
 - First aid kit
 - Hearing protection
 - High visibility clothing
 - Eye protection
 - Apron
 - Chain mesh gloves
- manufacturers' instructions and recommendations for repair and maintenance of chainsaws
- template documents for recording repairs, maintenance activities and equipment faults.
- organisational procedures for repairing and maintaining chainsaws.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPCOT2239 Trim and cut felled trees

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT2239A Trim and cut felled trees, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit describes the outcomes required to trim and cut felled trees with a chainsaw and to complete operator maintenance. It applies to situations where the production of timber is not the primary focus of the activity.

The unit applies to forestry worker, chainsaw operator, forest harvester, harvesting technician, aboriculture worker.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states & territories at the time of publication, and may differ according to jurisdiction.

Pre-requisite Unit

Nil

Unit Sector

Common Technical

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for trimming and cutting	1.1 Review work order and where required check with appropriate personnel. 1.2 Select appropriate personal protective and other equipment and

ELEMENTS	PERFORMANCE CRITERIA
	<p>check for operational effectiveness.</p> <p>1.3 Plan trimming and cutting activities in line with work order and environmental conditions.</p>
2. Visually assess felled trees	<p>2.1 Assess tree location and stability for conditions likely to affect safety of trimming and cutting activities</p> <p>2.2 Visually assess tree for defects and identify stresses within tree.</p> <p>2.3 Mark trees too dangerous to cut safely and refer to appropriate personnel.</p>
3. Plan cutting	<p>3.1 Move or stabilise tree for safe cutting in line with site procedures.</p> <p>3.2 Select cutting pattern to optimise time and manageable removal of sections.</p> <p>3.3 Identify options for utilisation of product.</p> <p>3.4 Plan cutting sequence to maintain control of cut sections and minimise cutting problems</p> <p>3.5 Select cutting positions considering tree stresses.</p> <p>3.6 Clear debris from work area to allow safe access and prevent saw damage and personal injury.</p>
4. Use chainsaw to trim and cut trees	<p>4.1 Monitor location and movement of other personnel and modify work to ensure safety</p> <p>4.2 Establish and maintain communication to ensure safety</p> <p>4.3 Secure tree section on each side of planned cut; evaluate and control potential movement.</p> <p>4.4 Operate chainsaw to cut tree and limbs and adjust cutting technique in response to movement and condition of tree and limbs</p> <p>4.5 Prepare cut sections for removal from the site.</p>
5. Complete equipment maintenance	<p>5.1 Follow organisational safety procedures to lock out equipment.</p> <p>5.2 Check chain for bluntness or damage.</p> <p>5.3 Remove, sharpen, adjust and replace chain and other components in line with manufacturer's recommendations.</p> <p>5.4 Record and report trimming and cutting records, equipment faults and maintenance requirements to appropriate personnel.</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.	
Numeracy skills to:	<ul style="list-style-type: none"> plan time efficient cutting patterns and sequences complete routine calculations and report on size, length and diameter of cut trees.
Oral communication skills to:	<ul style="list-style-type: none"> ask open and closed probe questions and actively listen to clarify contents of work plans
Reading skills to:	<ul style="list-style-type: none"> interpret: workplace health and safety and other organisational procedures work orders manufacturers' maintenance recommendations.
Writing skills to:	<ul style="list-style-type: none"> complete accurate basic records for tree trimming and cutting process, equipment faults and maintenance requirements.
Planning and organising skills to:	<ul style="list-style-type: none"> efficiently and logically sequence the stages of preparation for and cutting of trees using work order to guide activities.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT2239A Trim and cut felled trees

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT2239 Trim and cut felled trees

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPICOT2239A Trim and cut felled trees, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- safely and efficiently use a chainsaw to complete these activities:
 - trim and cut hardwood or softwood trees
 - delimb trees
 - trim branches
 - trim burls and other small growths
- use these cutting techniques:
 - bridging cuts
 - swinging cuts
 - side bind cuts
 - boring
 - wedge cut
 - ripping cuts
- trim and cut trees in these environmental conditions:
 - dry weather condition
 - wet weather condition
 - low and moderate wind speeds
- complete the following maintenance on a chainsaw:

- sharpening
- refuelling
- inspection, identification and replacement of bar, chain, drive sprockets
- bar oil checks and top up
- air filter, check, clean and replacement
- cleaning of saw body, air intake vents and cooling fans
- fitting spare chain and tension chain.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- environmental protection measures including:
 - action to limit the impact of noise, wind speed and direction, fallen trees, ground slope, ground hazards and obstacles, general forest lean
 - action to limit the impact to ground growth, canopy, density of trees
 - action to limit the impact on flora, fauna and habitat
 - soil and water protection
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing timber and other waste
- key features of these varying environmental conditions and effects on tree cutting and trimming activities:
 - ground growth
 - ground hazards and obstacles
 - ground slope
 - wet and adverse weather conditions
 - wind speed and direction
- typical tree defects and how they affect tree cutting activities:
 - splits
 - falling damage
 - fire damage
 - insect infestation
 - pipe
 - shake
 - twist
 - knots and resin pockets
- typical tree stresses and how they affect tree cutting activities
 - tension (fibres being stretched)
 - compression (fibres being squashed)
 - neutral fibres
- range of chainsaw cutting techniques:

- bridging cuts
- swinging cuts
- side bind cuts
- delimiting
- boring
- wedge cut
- ripping cuts
- cutting patterns used to optimise time and recovery of product from trees
- cutting sequences used to maintain control of cut sections and minimise cutting problems
- purpose, features, operation and basic non-specialist repair and maintenance: of chainsaws
- methods for assessing chain condition
- organisational procedures specific to tree trimming and cutting activities:
 - workplace health and safety with particular emphasis on equipment lock out and use of personal protective equipment
 - communication reporting lines
 - recording and reporting tree cutting outcomes, equipment faults and maintenance requirements.

Assessment Conditions

The following resources must be made available:

- chainsaws
- chainsaw fuel and oil containers
- support tools (hammer, wedges, logging tape, cant hook or breaking bar)
- maintenance tools and equipment for chainsaws
- personal protective equipment suitable for cutting trees and maintaining chainsaws
- manufacturers' instructions for use and maintenance of equipment
- work order with specific instructions for tree cutting activities
- template reports for recording tree cutting outcomes, equipment faults and maintenance requirements
- organisational procedures for tree trimming and cutting activities.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPCOT3202 Navigate in remote or trackless areas

Modification History

Release	Comment
1	Replaces equivalent FPICOT3202B Navigate in remote or trackless areas, which was first released with FPI11 Forest and Forest Products Training Package Version 1. This is the first release of this unit in the new standards format

Application

This unit of competency describes the outcomes required to navigate in untracked, remote areas in situations where difficult environmental conditions and poor visibility are likely to occur. The unit includes interpretation and use of maps and other navigation aids.

The unit applies to Forestry Worker, Plantation Worker, Forest Harvester, Harvesting Technical Forestry Technician, Tree Planter, Mobile Equipment Operator, Arboriculture Technician.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Forest Growing and Management

Harvesting and Haulage

Sawmilling and Processing

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for navigation	1.1 Identify and gather information and relevant factors and check with appropriate personnel.

	<p>1.2 Select suitable maps, equipment and navigation aids and check for accuracy, currency and operational effectiveness.</p> <p>1.3 Detect and correct faults or errors in maps and equipment.</p> <p>1.4 Establish communication with others in line with WHS and organisational requirements</p>
2. Plan the route	<p>2.1 Plan route in line with work instructions and WHS requirements.</p> <p>2.2 Examine maps to identify relevant symbols, information, navigation data and environmental requirements.</p> <p>2.3 Calculate accurate grid and magnetic bearings using maps and equipment in line with assignment instructions.</p> <p>2.4 Plan emergency exit routes and contingencies to combat other risks.</p>
3. Conduct navigation	<p>3.1 Undertake navigation in line with planned route and schedule.</p> <p>3.2 Orientate maps are correctly to surroundings in line with planned route.</p> <p>3.3 Use equipment and navigation aids in line with manufacturer recommendations.</p> <p>3.4 Navigate alternative routes to bypass obstacles and improve efficiency of course.</p> <p>3.5 Minimise impact on the environment as a result of navigation.</p> <p>3.6 Record and report navigation activities.</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	<ul style="list-style-type: none"> • interpret scales, symbols, grid references, distance and data included on maps and navigation equipment • estimate travel time and distances • locate own position on a map.
Planning and organising skills to:	<ul style="list-style-type: none"> • estimate resource and equipment requirements • effectively bypass obstacles.
Problem solving skills to:	<ul style="list-style-type: none"> • identify and solve problems with equipment and navigation route.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT3202B Navigate in remote or trackless areas.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT3202 Navigate in remote or trackless areas

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPICOT3202B Navigate in remote or trackless areas, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement</p>

Performance Evidence

- A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:
- follow organisational policies and procedures for navigating in a remote or trackless area
- select, interpret, and use maps and other written and diagrammatic information for navigation
- use maps, compass and navigation aids to plan routes and navigate in remote or trackless area which must be either:
 - standard magnetic compass using latitude/longitude and Universal Transverse Mercator (UTM) coordinate systems
 - global positioning system (GPS)
 - cadastral maps (maps that show the boundaries and ownership of land parcels)
 - topographic maps
 - general maps
- plan and conduct an efficient navigation, effectively bypassing obstacles within designated timeframes
- maintain navigation tools and equipment
- establish and maintain effective communication with appropriate personnel as required
- record navigation activities.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- regulations, standards, codes of practice and established safe practices for navigating in a remote or trackless area
- environmental protection requirements, including the safe disposal of waste material and returning the environment to its original or near to original condition on completion of activity
- organisational and site standards, requirements, policies and procedures for navigating in a remote or trackless areas
- factors that may affect navigation, including:
 - types of terrain and gradient
 - weather conditions
 - obstacles
 - distance
 - estimated travelling time
 - availability of resources, including water, rest stops, camp sites
 - access and exit routes
- use and features of various maps, images and charts including:
 - cadastral and topographic maps
 - charts
 - guide books
 - photographs and other digital imagery
 - sketches
 - diagrams
- representation of topographic features on maps and plans, including:
 - grid lines and numbers
 - contour lines
 - magnetic variation
 - scale
 - map legend
 - local features
 - markers and beacons
 - water depth
- common scales and reference information used on maps and plans
- features and uses of environmental navigation aids:
 - survey markers
 - track markers and beacons
 - signs
 - arrows
 - natural landmarks and reference points

purpose, features and operation of navigation equipment, and procedures for their safe use and maintenance, including

- global positioning system (GPS) device

- magnetic compass, including adjustment for local magnetic variation
- locator beacons
- personal protective equipment and clothing
- techniques for estimating distance travelled within a particular activity context
- established communication modes, methods and protocols
- procedures for recording and reporting workplace information.

Assessment Conditions

The following resources must be made available:

- site to navigate
- navigation equipment
- work order, workplace requirements and site standards for navigating in remote or trackless areas.
- communication devices

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPCOT3238 Operate a pole saw

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPICOT3238B Operate a pole saw, which was first released with FPI11 Forest and Forest Products Training Package Version 1.</p> <p>Change of title to more accurately reflect the intended application of unit for use of power driven pole-mounted chain saws</p> <p>This is the first release in the new standards format.</p>

Application

This unit of competency describes the outcomes required to trim high branches reachable with a power driven pole saw and to promote tree growth by trimming and felling excess branches.

Power driven pole saw in this unit refers to professional standard pole-mounted chain saws that are typically fuel types, but may be battery powered, and generally telescopic.

It applies to those who operate a pole saw in a forest environment and includes equipment maintenance.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Forest Growing and Management

Harvesting and Haulage

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. for trimming	1.1 Identify and follow WHS, environmental, legal and organisational

	<p>requirements for operating a pole saw.</p> <p>1.2 Review work order and clarify with appropriate personnel.</p> <p>1.3 Select equipment appropriate to work requirements and check for serviceable condition in line with manufacturer recommendations.</p> <p>1.4 Carry out pre-startup checks of pole saw in line with site requirements.</p> <p>1.5 Establish and maintain communication with others to ensure safety.</p>
2. Assess trees	<p>2.1 Identify and assess tree type, location and stability for safe working conditions.</p> <p>2.2 Plan the trim of a tree in line with site procedures and environmental conditions.</p> <p>2.3 Identify trees unable to be trimmed safely and refer to appropriate personnel.</p> <p>2.4 Determine whether the height of the branch is within safe reach when using the pole saw</p> <p>2.5 Establish general falling direction of branches and limbs to be trimmed and identify clear escape route.</p>
3. Trim trees	<p>3.1 Trim accessible branches and knots to specifications in line with manufacturer recommendations and organisational safe work practices for angle and height allowances.</p> <p>3.2 Monitor movement and whereabouts of other personnel to ensure work site is safe.</p> <p>3.3 Undertake sequence of cuts to trim tree branches.</p> <p>3.4 Operate pole saw in line with safety regulations, adjusting technique in response to condition of the tree.</p> <p>3.5 Diagnose unexpected characteristics of a tree during trimming operations and review tree assessment if required.</p> <p>3.6 Complete cutting once initiated, to minimise splitting.</p> <p>3.7 Clear cut branches from the site in line with standard operating procedures and environmental requirements.</p> <p>3.8 Record and report trimming activity.</p>
4. Conduct operator maintenance	<p>4.1 Follow lock-out procedures in line with WHS legislation and site procedures.</p> <p>4.2 Inspect condition of saw and other equipment on completion of trimming activities.</p> <p>4.3 Remove, sharpen, adjust or replace chain and other components, in line with manufacturer recommendations.</p> <p>4.4 Recycle, re-use or dispose of blunt or damaged chain and other</p>

	<p>components in line with environmental requirements.</p> <p>4.5 Clear pole saw of dust, shavings and debris and check to make sure it meets relevant operational standards.</p> <p>4.6 Record and report equipment faults and maintenance activity.</p>
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Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.	
Numeracy skills to:	<ul style="list-style-type: none"> sharpen chain with files set to correct angles.
Writing skills to:	<ul style="list-style-type: none"> record trimming activity and maintenance records.
Problem solving skills to:	<ul style="list-style-type: none"> to identify problems and equipment faults and select treatments identify appropriate branches to be trimmed assess the capacity and suitability of equipment to the task of trimming trees.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT3238B Operate a pole saw.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT3238 Operate a pole saw

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPICOT3238B Operate a pole saw, which was first released with FPI11 Forest and Forest Products Training Package Version 1. This is the first release in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- undertake trimming with a pole saw to correctly and safely demonstrate competency in the following:
- assess trees and site conditions to work safely
- correct use of safety attire and protective equipment
- conduct pre-operational checks of pole saw
- trim trees at safe height and angle in line with manufacturer recommendations and organisational safe working practices
- select/adjust trimming sequence and cutting techniques in response to various tree characteristics and site conditions
- conduct operator maintenance

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- workplace requirements and site standards for carrying out pole saw operations
- environmental risks and hazards associated with trimming trees with a pole saw
- characteristics of trees and timber defects
- Branch Bark Ridge (BBR) and Bark Branch Collar (BBC)
- appropriate trimming sequence and cutting techniques
- manufacturer recommendations and organisational safe working practices for operating a pole saw at safe height and angle limits

- methods for assessing condition of pole saw chain
- established communication channels and protocols
- problem identification and resolution strategies, and common fault finding techniques
- procedures for recording and reporting workplace information.
-

Assessment Conditions

The following resources must be made available:

- a professional standard fuel or battery powered pole-mounted chain saw with telescopic extension
- work order, workplace requirements and site standards for conducting pole saw operations
- relevant personnel for the purposes of communicating information

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPCOT3259 Operate a four wheel drive on unsealed roads

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT3259 Operate a four wheel drive on unsealed roads, which was first released with FPI11 Forest and Forest Products Training Package Version 1.0. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to safely operate a four wheel drive (4x4) vehicle on unsealed roads.

The unit applies to operating a 4x4 vehicle in a variety of work settings with different terrains.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction.

Pre-requisite Unit

Nil

Unit Sector

Forest Growing and Management

Harvesting and Haulage

Sawmilling and Processing

Timber Manufactured Products

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Identify four-wheel	1.1 Access, interpret and apply information relevant to

ELEMENTS	PERFORMANCE CRITERIA
drive specific terms and terminology	<p>operating a four-wheel drive vehicle on unsealed roads.</p> <p>1.2 Identify the structural and handling differences between a conventional two-wheel drive vehicle and a four-wheel drive vehicle.</p> <p>1.3 Identify four-wheel drive techniques.</p>
2. Conduct checks of 4x4 vehicle and equipment	<p>2.1 Perform pre-start checks.</p> <p>2.2 Secure loads in line with organisational, workplace safety and environmental requirements.</p> <p>2.3 Select suitable navigation aids where necessary.</p> <p>2.4 Advise passengers of any special safety precautions to be taken when traversing rough terrain.</p> <p>2.5 Check that tyre pressure is suitable for terrain and that it is changed as required in line with organisational procedures.</p> <p>2.6 Select and access maintenance equipment prior to departure after considering the contextual issues.</p>
3. Prepare for 4x4 operations	<p>3.1 Identify and follow work health and safety (WHS), environmental, and organisational requirements relevant to operating a 4x4 vehicle.</p> <p>3.2 Determine type of operation and ensure safe operating conditions.</p> <p>3.3 Establish communication with others and choose the required safety mechanisms in line with organisational requirements.</p>
4. Operate 4x4 vehicle on unsealed terrain types	<p>4.1 Continually monitor the track to identify hazards, assess risks, and select the best route in line with WHS and environmental requirements.</p> <p>4.2 Identify situations where the engagement of four-wheel drive is required and engage front hubs or centre differential lock where fitted.</p> <p>4.3 Use appropriate range, gear, speed, driving and braking technique to negotiate a range of terrain types while maintaining control of vehicle at all times.</p> <p>4.4 Check brakes and undercarriage after negotiating varying terrain.</p> <p>4.5 Park and shut down 4x4 vehicle in line with manufacturer specifications and organisational requirements.</p>
5. Operate 4x4 vehicle on	5.1 Inspect intended 4x4 vehicle path prior to negotiation of slope.

ELEMENTS	PERFORMANCE CRITERIA
a steep slope	<p>5.2 Use appropriate range, gear, speed, driving and braking technique to negotiate a steep slope, while maintaining control of vehicle.</p> <p>5.3 Use control braking to ascend and descend, and avoid skidding.</p> <p>5.4 Maintain traction in line with requirements of 4x4 vehicle.</p> <p>5.5 Apply appropriate automatic and manual techniques when 4x4 vehicle cannot proceed any further on a steep slope due to traction problems.</p>
6. Perform maintenance and minor repairs on 4x4 vehicles	<p>6.1 Perform operational maintenance and minor repairs as detailed in the vehicle operator manual and report vehicle defects to the appropriate person.</p> <p>6.2 Demonstrate safe use of a jack to support a 4x4 vehicle while changing a tyre under relevant road terrains and conditions within the operating environment</p> <p>6.3 Clean and store 4x4 vehicle and equipment after use in line with manufacturer specifications and organisational procedures.</p> <p>6.4 Document maintenance and minor repairs in line with organisational procedures.</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.	
Numeracy skills to:	<ul style="list-style-type: none"> • correctly adjust tyre pressure and follow operating instructions on instruments for checking, repairing and operating a four wheel drive vehicle • estimate the impact of shape of terrain on driving conditions • estimate time of a journey, water depth and fuel consumption.
Reading skills to:	<ul style="list-style-type: none"> • follow instructions in safety and equipment manuals when checking and operating four wheel drive vehicle • interpret diagrams on equipment or in operational manuals.
Problem solving skills to:	<ul style="list-style-type: none"> • identify problems and equipment faults in four wheel drive vehicles and demonstrate appropriate response procedures • identify potential hazards and operational faults when driving four wheel drive vehicles and demonstrate appropriate response procedures • demonstrate appropriate response procedures to driving conditions when driving four wheel drive vehicles.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT3259 Operate a four wheel drive on unsealed roads

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT3259 Operate a four wheel drive on unsealed roads

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPICOT3259 Operate a four wheel drive on unsealed roads, which was first released with FPI11 Forest and Forest Products Training Package version 1.0. This is the first release of this unit in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including 'Required Skills and Knowledge, Evidence Guide and Range Statement'.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- follow applicable workplace safety, environmental and regulatory requirements and codes of practice relevant to operating a 4x4 vehicle
- follow organisational policies and procedures relevant to operating a 4x4 vehicle, including:
 - own work role and responsibilities
 - procedural manuals
 - quality and continuous improvement
 - WHS, emergency and evacuation procedures
 - recording and reporting requirements
 - equipment use, maintenance and storage requirements
 - environmental management requirements
- communicate and work safely with others in rough terrain when operating a 4x4 vehicle
- perform pre-start checks of vehicle and equipment suitable to different terrains by checking loads and tyre pressure, selecting navigation aids and advising passengers of safety precautions
- operate safely, a 4x4 vehicle, on unsealed road conditions and different terrain types, including negotiating steep slopes, by identifying hazards and assessing risks
- use appropriate range, gear, speed, driving and braking techniques safely when operating a 4x4 vehicle on a steep slope

- demonstrate safe use of a jack to support a 4x4 vehicle while changing a tyre under relevant road terrains and conditions within the operating environment
- park and shut down 4x4 vehicle in line with *manufacturer specifications* and organisational requirements
- perform and document operational maintenance as permitted by vehicle operator handbook.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- four wheel drive operational information
- structural differences between conventional two wheel drive and a four wheel drive including:
 - recovery hooks and mounting features
 - purpose and use of front wheel hubs
 - factors affecting tyre size, fitment, rating and pressure
- applicable regulations, standards, codes of practice and established safe practices relevant to the operating a 4x4 vehicle
- road rules, regulations, permit and licence requirements of the relevant state or territory
- environmental protection requirements including the safe disposal of waste material
- prestart checks for 4 x 4 vehicle on:
 - fuel, either diesel, gas or petrol
 - water
 - oil
 - brake and transmission fluid levels
 - battery water levels and electrolyte checks
 - tyres
 - belts
 - leads
 - hydraulic lines and connections
 - air cleaners
 - brakes
 - off-road safety equipment
 - traction devices
- Types of communication equipment including:
 - personal location beacon (PLB)
 - flares
 - markers
 - phone
 - radio
 - V-Sheet

- safe operating conditions for a 4 X 4 vehicle
 - interpreting weather conditions to determine suitability for driving
 - determining food, water, PPE (sunglasses, high-visibility vest, etc.) and clothing requirements for journey
 - selecting routes to minimise damage to the environment
 - on and off-road conditions
 - traffic pattern and density
 - visibility
 - loading of four-wheel drive, including techniques to reduce overloading
- types of environmental risks and hazards associated with operating a 4x4 vehicle on unsealed roads including:
 - rocks and other unexpected obstacles
 - damage to vehicle
 - tidal influences
 - fire in vehicle
 - faulty brakes
 - leaking fuel
 - faulty steering mechanism on vehicle
 - animals and objects in vehicle path
 - crocodiles and snakes in some areas
 - windy or foggy sections of terrain
 - steep slopes
 - side slopes
 - slippery surfaces
 - land slides
 - overhead tree limbs
 - black ice
 - towing trailers
 - other vehicles
 - fallen trees, limbs and logs
 - icy terrain
 - flooded terrain
 - oil on road
 - parked vehicles on road
 - pedestrians on or near the road
 - poor visibility
- 4x4 driving techniques in different terrains including:
 - smooth
 - rough
 - uneven

- slippery
- wet
- boggy
- sandy
- steep or hilly
- rock
- icy
- snow
- mud, including:
 - brown clay
 - black silt
 - salt pan mud
 - red
- hard ground
- water
- operational knowledge of a 4x4 vehicle, including controls, instruments, indicators and their use
- tyre management principles for checking, changing and maintenance
- workplace communication channels and protocols
- techniques for travelling in convoy
- problem identification and resolution strategies, and common fault-finding techniques relevant to safely operating a four wheel drive vehicle
- types of tools and equipment relating to a 4x4 vehicle, and procedures for their safe use and maintenance
- maintenance equipment including spares and fluids
- procedures for recording and reporting workplace information.

Assessment Conditions

The following resources must be made available:

- workplace location or simulated workplace offering conditions including different terrain on unsealed roads and steep slopes
- materials and equipment relevant to undertaking work applicable to this unit, including manual or automatic four-wheel drive or all-wheel drive
- specifications and work instructions relevant to workplace requirements and the safe operation of four wheel drive vehicles
- personal protective equipment required for operating a four wheel drive on unsealed roads
- relevant personnel for the purposes of communicating information.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPCOT6204 Use carbon accounting to estimate emissions

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT6204A Use carbon accounting to estimate emissions in the workplace which was first released with FPI11 Forest and Forest Products Training Package Version 2.2

Application

This unit of competency describes the outcome required to identify and apply carbon accounting methodologies to develop and analyse a carbon inventory. It applies to senior managers and can apply to the full scope of forest and wood products industry workplaces and to operations of all sizes.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Common Technical

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Evaluate context for carbon accounting	<p>1.1 Determine organisational need to quantify stocks, sources and sinks of carbon and other greenhouse gas (GHG) emissions in line with anthropogenic impacts on global climate.</p> <p>1.2 Investigate mandatory and voluntary obligations for carbon</p>

ELEMENTS	PERFORMANCE CRITERIA
	<p>accounting under international conventions and protocols within national context.</p> <p>1.3 Examine the principles of baseline scenario, leakage and permanence.</p> <p>1.4 Assess the role of forest and wood products industry in global balance of GHG emissions.</p> <p>1.5 Establish organisational objective of conducting carbon emission accounting.</p>
2. Identify carbon accounting methodologies and define approach	<p>2.1 Identify and explore methodologies for carbon accounting.</p> <p>2.2 Examine carbon accounting frameworks.</p> <p>2.3 Identify protocols for carbon biomass pools including harvested wood products and non-CO2 emissions.</p> <p>2.4 Establish approach for developing carbon inventory in line with nationally agreed standards.</p>
3. Establish accounting area	<p>3.1 Define organisational and operational boundaries for carbon inventory.</p> <p>3.2 Determine time period over which carbon emissions will be assessed.</p>
4. Collect data	<p>4.1 Identify emissions and offset sources.</p> <p>4.2 Determine collection of activity consumption and offset data, based on data availability, analytical capacity and available resources.</p> <p>4.3 Construct carbon inventory summary table, listing and separating emission sources into correct scopes.</p> <p>4.4 Include carbon offset sources outside scope in carbon inventory summary table.</p> <p>4.5 Record available data in separate spreadsheet tabs.</p> <p>4.6 Research and gather existing secondary and field data for carbon storage sources.</p>
5. Calculate carbon emissions	<p>5.1 Calculate carbon dioxide equivalent emissions consistent with GHG protocol within spreadsheets for each emissions source.</p> <p>5.2 Calculate carbon storage according to standardised methodology for each carbon offset source in the inventory.</p> <p>5.3 Populate carbon inventory summary with calculated emissions and offsets in descending order.</p>

ELEMENTS	PERFORMANCE CRITERIA
	5.4 Calculate total emissions for each scope and for removals and offsets. 5.5 Calculate sum total of emissions and offsets for inventory. 5.6 Estimate change in carbon stock if a baseline exists. 5.7 Display emissions by scope and source, using charts or graphs. 5.8 Formulate suitable ratio indicator for organisation and calculate value based on total carbon emissions in the summary. 5.9 Report value of ratio indicator in carbon inventory summary.

Foundation Skills

<i>This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.</i>	
Numeracy skills to:	<ul style="list-style-type: none"> • interpret a range of complex abstract numerical data • complete highly technical and complex calculations using equations • record abstract data with precision and prepare interpretative charts and graphs.
Reading skills to:	<ul style="list-style-type: none"> • interpret highly technical, complex and unfamiliar information within international and Australian protocol and convention documents.
Writing skills to:	<ul style="list-style-type: none"> • document clear explanatory notes for calculations.
Planning and organising skills to:	<ul style="list-style-type: none"> • source, collect and organise a range of data to inform carbon emission calculations • plan and organise collection of all required information and manage own timing and productivity to complete calculations.
Technology skills to:	<ul style="list-style-type: none"> • use a computer, keyboard and spreadsheet software to prepare and maintain calculations.

Unit Mapping Information

FPICOT6204A Use carbon accounting to estimate emissions in the workplace.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT6204 Use carbon accounting to estimate emissions

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPICOT6204A Use carbon accounting to estimate emissions in the workplace which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including 'Required Skills and Knowledge, Evidence Guide and Range Statement'.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit, and must be able to provide evidence that they can:

- For a given forest and wood products industry organisation within any sector:
 - identify mandatory and voluntary obligations for carbon accounting
 - define organisational objectives for participating in carbon accounting processes
 - define boundaries for the carbon inventory
 - select a methodology for carbon accounting calculations for emissions and offsets
- Complete two different carbon accounting calculations for two different time periods in line with the selected methodology and include the following factors:
 - direct greenhouse gas (GHG) emissions
 - indirect GHG emissions
 - on-site and off-site emissions (geographical)
 - upstream emissions
 - downstream emissions
 - full cycle accounting
 - non-CO2 emissions; soil disturbance, fertilisation, biomass combustion

In forest applications also consider the following:

- above ground biomass
- below ground biomass
- dead organic matter - wood, litter
- soil organic matter

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- Methods to access, locate and select applicable objectives and key content in relevant international and national conventions, protocols, standards and guidance frameworks, including the following key references:
 - Kyoto Protocol
 - ISO 14000 essentials:
 - ISO 14064-1 2006 Greenhouse gases -- Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
 - Greenhouse Gas Protocol Corporate Standard
 - Copenhagen Agreement
 - National Greenhouse Accounts (NGA) Factors Workbook
- Key drivers for carbon accounting
- Basic theory of the greenhouse effect and its impacts
- Basic principles of the carbon cycle and influences
- Carbon accounting terminology, frameworks and methods used to calculate carbon emissions and offsets
- Types of emissions and offset sources included in common calculations:
 - Direct GHG emissions
 - Indirect GHG emissions
 - On-site and off-site emissions (geographical)
 - Upstream emissions
 - Downstream emissions
 - Full cycle accounting
 - Non-CO2 emissions; soil disturbance, fertilisation, biomass combustion
- Sources of secondary data for carbon accounting
 - national statistical agencies
 - research institutes
 - information from sectoral experts
- Organisational and operational boundaries for the carbon inventory
- The full range of organisational emission sources and methods used to select key emission factors for calculations.

Assessment Conditions

The following resources must be made available:

- Computer, keyboard and spreadsheet software to prepare and maintain calculations
- Documents, spreadsheets and commonly used proformas for calculating carbon emissions

- Access to international and national conventions, protocols, standards and guidance frameworks including the following key references:
 - Kyoto Protocol
 - ISO 14000 essentials:
 - ISO 14064-1 2006 Greenhouse gases -- Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
 - Greenhouse Gas Protocol Corporate Standard
 - Copenhagen Agreement
 - National Greenhouse Accounts (NGA) Factors Workbook

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- Hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPCOT6205 Prepare an enterprise carbon management report

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT6205A Prepare an enterprise carbon management report which was first released with FPI11 Forest and Forest Products Training Package Version 2.2

Application

This unit of competency describes the outcomes required to write a carbon management report for an organisation for dissemination to internal personnel and or external authorities.

It applies to job roles, including senior managers and can apply to the full scope of forest and wood products industry workplaces and to operations of all sizes.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Common Technical

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare to write report	1.1 Establish and maintain information management system to manage data over the reporting period. 1.2 Review carbon reporting procedures outlined in regulatory or

ELEMENTS	PERFORMANCE CRITERIA
	<p>voluntary standards for carbon management.</p> <p>1.3 Determine scope of carbon reporting and relevant audience.</p> <p>1.4 Establish structure and specific objectives for each report heading in line with carbon reporting procedures content mandated by standards or regulatory bodies.</p> <p>1.5 Develop report format and style in line with organisational formats and style guides.</p> <p>1.6 Assess carbon inventory data for completeness, relevance and accuracy.</p>
2. Compile draft report	<p>2.1 Develop report content in line with report format and objectives.</p> <p>2.2 Gather evidence to generate specific findings and recommendations relevant to carbon management principles.</p> <p>2.3 Use appropriate language and ensure content covers the full scope of reporting requirements.</p>
3. Complete final report	<p>3.1 Present draft report to appropriate personnel, seek feedback and amend as required.</p> <p>3.2 Prepare final draft for executive sign-off and distribute to stakeholders.</p> <p>3.3 Name and store documents in line with organisational information management system requirements.</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	<ul style="list-style-type: none"> Interpret a range of complex abstract numerical carbon inventory data Accurately transcribe carbon accounting data into reports.
Reading skills to:	<ul style="list-style-type: none"> Interpret highly technical, complex and unfamiliar information within carbon accounting records and international and Australian protocol and convention documents.
Writing skills to:	<ul style="list-style-type: none"> Develop and document reports requiring the presentation of precise complex information, using simple language structures for use by wide audiences.
Planning and organising skills to:	<ul style="list-style-type: none"> Source, collect and organise a range of data to inform reporting requirements and report contents.

	<ul style="list-style-type: none">Plan and organise collection of all required information and manage own timing and productivity to complete reports.
Technology skills to:	<ul style="list-style-type: none">Use a computer, keyboard and spreadsheet software to prepare and maintain reports.

Unit Mapping Information

FPICOT6205A Prepare an enterprise carbon management report

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT6205 Prepare an enterprise carbon management report

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPICOT6205A Prepare an enterprise carbon management report which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including 'Required Skills and Knowledge, Evidence Guide and Range Statement'.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit, and must be able to provide evidence that they can:

- For a given forest and wood products industry organisation within any sector:
 - identify mandatory and voluntary obligations for reporting on carbon management
 - identify content mandated by standards or regulatory bodies
 - develop one report for one specified reporting time period using organisational styles and formats
 - include the following information in the report:
 - content mandated by standards or regulatory bodies
 - organisational drivers for carbon accounting and reporting
 - diagram of organisational and operational boundaries for the carbon inventory
 - organisational emissions sources, offsets and their scope
 - summary carbon inventory table
 - whether or not the organisation's total carbon emissions breach any reporting thresholds
 - financial implications and risks for the organisation of various carbon price signals
 - setting of carbon reduction targets and objectives for the organisation
 - options for the introduction of new carbon management principles
 - recommended actions for reducing organisational greenhouse gas emissions
 - recommended actions for improving carbon accounting and reporting
 - barriers experienced when developing the inventory and report.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- Methods to access, locate and select applicable objectives and key content in relevant international and national conventions, protocols, standards and guidance frameworks, including the following key references:
 - Kyoto Protocol
 - ISO 14000 essentials:
 - ISO 14064-1 2006 Greenhouse gases -- Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
 - Greenhouse Gas Protocol Corporate Standard
 - Copenhagen Agreement
- Voluntary and mandatory requirements for reporting on carbon management to meet requirements of standards and regulation and required content.
- Key drivers for carbon accounting and reporting.
- Basic theory of the greenhouse effect and its impacts
- Basic principles of the carbon cycle and influences.
- Carbon accounting terminology, frameworks and methods used to report calculations for carbon emissions and offsets.
- Types of emissions and offset sources included in common calculations and reports, including:
 - direct GHG emissions
 - indirect GHG emissions
 - on-site and off-site emissions (geographical)
 - upstream emissions
 - downstream emissions
 - full cycle accounting
 - non-CO2 emissions; soil disturbance, fertilisation, biomass combustion
- Organisational and operational boundaries for the carbon inventory.
- The full range of organisational emission sources and methods used to select key emission factors for calculations and reports.

In forest applications a person must also be able to demonstrate knowledge of the following as they apply to preparing an enterprise carbon management report:

- above ground biomass
- below ground biomass
- dead organic matter - wood, litter
- soil organic matter

Assessment Conditions

The following resources must be made available:

- Computer, keyboard and software to prepare and maintain reports.
- Access to International and national conventions, protocols and standards:
- Kyoto Protocol
- ISO 14000 essentials:
 - ISO 14064-1 2006 Greenhouse gases -- Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
 - Greenhouse Gas Protocol Corporate Standard.
- Copenhagen Agreement
- Carbon inventory data for the organisation.
- Organisational formats and style guides for the presentation of reports.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- Hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.
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Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPCOT6207 Develop forest management systems and processes

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT6207A Develop forest management systems and processes which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.

Application

This unit describes the outcomes required to develop and implement systems for forestry management that meet the requirements for international treaties, conventions and initiatives; and commonwealth, state or territory law.

It applies to senior managers and can apply to a variety of work settings, such as native forests, plantations, agroforestry, farm forestry and operations of all sizes.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Common Technical

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Determine factors for inclusion in forest	1.1 Identify key requirements of relevant laws, international treaties, conventions and initiatives to confirm organisational

ELEMENTS	PERFORMANCE CRITERIA
management system	<p>compliance requirements.</p> <p>1.2 Quantify range and scope of organisational activities requiring compliance with laws, international treaties, conventions and initiatives.</p> <p>1.3 Monitor relevant information sources to identify and maintain knowledge of forest management issues.</p> <p>1.4 Measure and qualify strategic and operational factors impacting on organisational forest management processes.</p> <p>1.5 Identify strategic priorities and plan implementation to ensure compliance with laws, international treaties, conventions and initiatives.</p>
2. Establish forest management plans and system	<p>2.1 Direct and manage design of organisational forest management system.</p> <p>2.2 Develop criteria for implementing and maintaining systems for forest management.</p> <p>2.3 Develop methods for gathering and monitoring forest management information.</p> <p>2.4 Develop, circulate and maintain feedback systems supporting forest management processes.</p> <p>2.5 Develop processes for forest management; circulate and obtain sign-off from appropriate personnel.</p>
3. Implement forest management system	<p>3.1 Allocate material and equipment resources to implement systems in line with timelines and budget.</p> <p>3.2 Assign roles and responsibilities to appropriate personnel and provide information on expected outcomes.</p> <p>3.3 Coordinate training of personnel to ensure system and quality practices are incorporated into day-to-day work activities.</p> <p>3.4 Implement feedback methods for determining effectiveness of major elements of forest management system.</p> <p>3.5 Monitor system compliance of staff and contractors.</p>
4. Monitor and evaluate forest management system	<p>4.1 Monitor forest management systems regularly for compliance with laws, international treaties, conventions and initiatives.</p> <p>4.2 Evaluate information on forest condition and consider system improvements.</p> <p>4.3 Review reports to ensure compliance requirements are</p>

ELEMENTS	PERFORMANCE CRITERIA
	<p>consistently implemented and take corrective action as required.</p> <p>4.4 Discuss and analyse feedback for operational effectiveness of system.</p> <p>4.5 Make required changes to system based on consultation and analysis.</p>

Foundation Skills

<i>This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.</i>	
Numeracy skills to:	<ul style="list-style-type: none"> • Manage complex budgets for all system aspects.
Oral communication skills to:	<ul style="list-style-type: none"> • Hold high-level consultative discussions to generate feedback on systems and ideas for changes.
Reading skills to:	<ul style="list-style-type: none"> • Interpret highly complex and unfamiliar information within laws (or plain English equivalent documents), international treaties, conventions and initiatives.
Writing skills to:	<ul style="list-style-type: none"> • Develop system documents requiring the presentation of precise complex information, using simple language structures for use by wide audiences.
Planning and organising skills to:	<ul style="list-style-type: none"> • Source, collect and organise a range of data to inform system requirements. • Manage own timing and productivity to plan for and implement forest management systems.
Technology skills to:	<ul style="list-style-type: none"> • Use a computer, keyboard and software to create system documents.

Unit Mapping Information

FPICOT6207A Develop forest management systems and processes

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT6207 Develop forest management systems and processes

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPICOT6207A Develop forest management systems and processes which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including 'Required Skills and Knowledge, Evidence Guide and Range Statement'.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit, and must be able to provide evidence that they can:

- Complete a research project to determine and report on compliance requirements for a given organisation operating in a given forest location covering requirements for:
 - commonwealth, state or territory law
 - local government regulations
 - international treaties, conventions and initiatives.
- Develop a suite of systems and processes to maintain compliance with the identified requirements.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- Objectives and key content of commonwealth, state or territory and local government laws and regulation relevant to forest management, including key areas of:
 - land ownership
 - boundary management
 - environmental management
 - access
 - silviculture
 - harvesting
 - forest protection

- Methods to access, locate and select applicable objectives and key content of international and national treaties, conventions and initiatives relevant to forest management, the following key references:
 - Australian Standard for Sustainable Forest Management AS4708 endorsed by PEFC
 - Forest Stewardship Council (FSC) Certification
- Factors to be considered in assessing forest management issues inherent to different types of forests.
- Forest management issues that impact on the organisation and its practices.
- Scope of forest operations and activities of the organisation, including:
 - operations in national parks
 - other operations on public land
 - operations on private land
 - timber growing and harvesting
 - fire management
- Strategic and operational factors impacting on organisational forest management processes and decision making, including:
 - fire management planning
 - flora and fauna planning
 - planning for environmental protection and monitoring
 - regulatory compliance issues
 - compliance with international treaties, conventions and initiatives
 - location and nature of sites
 - organisational policy and operational guidelines
 - public liabilities and exposure to risk
 - risk-management strategies and policies
- Financial and business administration principles relevant to organisational needs.

Assessment Conditions

The following resources must be made available:

- Computers, keyboards and software used to create system documents.
- Commonwealth, state or territory laws and local government regulations (or plain english documents issued by regulators) relevant to forest management.
- International treaties, conventions and initiatives relevant to forest management.
- Publications and journals relevant to forest management.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- Hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.
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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPFGM2207 Undertake brushcutting operations

Modification History

Release	Comment
1	Replaces equivalent unit FPIFGM2207B Undertake brushcutting operations, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to plan for and safely cut vegetation using a professional standard blade type brushcutter. Work is completed in a variety of work settings including forest environments, farms, nurseries and local council environments.

The unit applies to forestry worker, plantation forest officer, arboriculture worker.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Forest Growing and Management

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for brushcutting	1.1 Review work order and where required check with appropriate personnel. 1.2 Select personal protective and other equipment and check for operational effectiveness.

ELEMENTS	PERFORMANCE CRITERIA
	<p>1.3 Identify and assess environmental conditions and site hazards in line with organisational procedures.</p> <p>1.4 Select appropriate cutting methods for identified types of vegetation and to optimise time and safety.</p>
2. Operate brushcutter	<p>2.1 Use equipment in line with organisational safety procedures, manufacturer's instructions and environmental protection practices.</p> <p>2.2 Use hand signals with other operators to maintain effective and safe operations.</p> <p>2.3 Adjust brushcutter safety harness and handles to correct ergonomic position.</p> <p>2.4 Monitor brushcutter for operational effectiveness and refuel as required.</p> <p>2.5 Operate brushcutter appropriate to site conditions and at a safe distance from other people present.</p> <p>2.6 Dispose of cut vegetation in line with environmental protection practices.</p>
3. Complete operator maintenance	<p>3.1 Follow organisational safety procedures to lock out equipment.</p> <p>3.2 Check brushcutter blades for bluntness or damage.</p> <p>3.3 Remove and replace brushcutter blades and other operator-replaceable components in line with manufacturer's recommendations.</p> <p>3.4 Dispose of used blades in line with environmental protection practices.</p> <p>3.5 Record and report equipment faults and maintenance requirements to appropriate personnel.</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	<ul style="list-style-type: none"> • complete routine measurements of fuel volume.
Oral communication skills to:	<ul style="list-style-type: none"> • ask open and closed probe questions and actively listen to clarify contents of work orders.
Reading skills to:	<ul style="list-style-type: none"> • interpret: <ul style="list-style-type: none"> • workplace health and safety and other organisational

	procedures <ul style="list-style-type: none"> • work orders • manufacturers' instructions and maintenance recommendations.
Writing skills to:	<ul style="list-style-type: none"> • complete accurate basic records for equipment faults and maintenance requirements.
Planning and organising skills to:	<ul style="list-style-type: none"> • efficiently and logically sequence the stages of preparation and brushcutting activities using work order to guide activities.

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Range of Conditions

Not Applicable

Unit Mapping Information

FPIFGM2207B Undertake brushcutting operations

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPFGM2207 Undertake brushcutting operations

Modification History

Release	Comment
Release 1	<p>Replaces equivalent unit FPIFGM2207B Undertake brushcutting operations, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- assess, plan and safely complete brushcutting jobs in line with work order prescribing areas and types of vegetation to be cut
- on completion of each of the above jobs:
 - dispose of cut vegetation in line with environmental protection practices
 - complete operator maintenance operator maintenance tasks including oil, fuel, safety checks, cleaning, lubricating, adjustments
 - complete basic records for equipment faults and maintenance requirements.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- typical workplace hazards associated with operating brushcutters and methods of minimising risks:
 - ground growth
 - ground slope
 - ground hazards
 - noise
 - weather
 - kickback

- flying objects
- safe working distances from other people present
- purpose, features and safe operation of brushcutters
- the correct ergonomic position in which to conduct brushcutter operations, including using a safety harness and handle adjustments
- methods for assessing blade condition, removing and replacing
- operator maintenance tasks including oil, fuel, safety checks, cleaning, lubricating, adjustments
- different types of vegetation and the appropriate brushcutting methods
- environmental protection practices for disposing of cut vegetation:
 - recycling vegetation where appropriate
 - sending vegetation to landfill only where it cannot be recycled
 - redirecting vegetation for energy recovery.
- organisational procedures specific to brushcutting operations:
- workplace health and safety with particular emphasis on equipment lock out and use of personal protective equipment
- communication reporting lines
 - recording and reporting equipment faults and maintenance requirements.

Assessment Conditions

The following resources must be made available:

- brushcutters
- maintenance tools and equipment for removing and replacing blades
- consumable fuel, brushcutter blades and other components
- personal protective equipment suitable for operating brushcutters
- manufacturers' instructions for use and maintenance of equipment
- work order with specific instructions for brushcutting operations
- template documents for recording equipment faults and maintenance requirements
- relevant personnel for the purposes of communicating information
- organisational procedures for operating brushcutters.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPFGM3201 Manage seed collection

Modification History

Release	Comment
1	Replaces equivalent unit FPIFGM3201B Manage seed collection, which was first released with FPI11 Forest and Forest Products Training Package Version 1. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to plan and monitor the implementation of seed collection or sowing programs. The unit includes collection of native and non-native species.

The unit applies to those who manage seed collection in settings such as: forest environments, farms, agriculture, nurseries and local councils.

The unit applies to Forestry technician, Nursery technician, Supervisor (Forestry operations), Tree planter, Silviculturist, Arboriculture technician

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states & territories at the time of publication, and may differ according to jurisdiction.

Pre-requisite Unit

Nil

Unit Sector

Forest Growing and Management

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Plan seed collection	1.1 Analyse seeding and/or planting program and identify seed characteristic requirements.

	<p>1.2 Identify seed collection opportunities and determine a suitable area for seed collection.</p> <p>1.3 Select seed collection methods and determine the quantity, cost and impacts on provenances and species.</p> <p>1.4 Identify the required approvals and seek and obtain from relevant authorities.</p> <p>1.5 Determine measurable performance indicators, specifications and targets.</p> <p>1.6 Seed collection plan, costs and performance indicators are clearly documented and communicated to appropriate personnel.</p>
2. Implement and monitor seed collection	<p>2.1 Coordinate and schedule resources required for seed collection.</p> <p>2.2 Establish and maintain communication with others to ensure safety.</p> <p>2.3 Implement the seed collection plan.</p> <p>2.4 Monitor seed collection activities to ensure compliance requirements are adhered to.</p> <p>2.5 Adjust seed collection activities to meet site conditions and communicate to appropriate personnel.</p>
3. Review seed collection	<p>3.1 Assess and evaluate data from seed collection activity to confirm techniques, methodologies and costs are in line with plan.</p> <p>3.2 Identify issues and impediments to seed collection activities and program costs.</p> <p>3.3 Prepare a cost benefit analysis and make recommendations to improve future seed collecting activity.</p> <p>3.4 Record and report seed collection activity to appropriate personnel.</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.	
Numeracy skills to:	<ul style="list-style-type: none"> calculate costs of seed collecting activity and simple cost benefit analysis
Oral communication skills to:	<ul style="list-style-type: none"> interact with land owners, and internal and external bodies and groups to gain approvals disseminate information about seed collecting activity to appropriate personnel.
Writing skills to:	<ul style="list-style-type: none"> prepare a seed collecting plan and report on seed collection

	activity.
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Range of Conditions

Not Applicable

Unit Mapping Information

FPIFGM3201B Manage seed collection.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPFGM3201 Manage seed collection

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPIFGM3201B Manage seed collection, which was first released with FPI11 Forest and Forest Products Training Package Version 1. This is the first release of this unit in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement</p>

Performance Evidence

- A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:
- follow legal and regulatory requirements, and codes of practice for managing seed collection
- follow organisational policies and procedures for managing seed collection
- develop a plan for seed collection which includes measurable performance indicators, specifications and targets
- coordinate and schedule resources, and manage the work of others to achieve specific outcomes
- monitor seed collection operations, ensuring that activity follows quality standards
- document results from seed collection activities and prepare a report for relevant personnel.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- applicable regulations, standards, codes of practice and established safe practices for managing seed collection
- organisational and site standards, policies and procedures for managing seed collection
- environmental risks and hazards of seed collection
- seed collection methods including:
 - climbing

- removal of branches with rifle
- elevated platform vehicles
- collecting after falling or felling
- ladders
- shaking
- biological signs that indicate that the seed crop is ready to be collected
- procedures to extract and handle seed from collected material, including handling procedures of the seed crop after picking
- treatment and documentation requirements of extracted seed
- characteristics of seed including:
 - provenance
 - potential growth characteristics
 - forest types
 - optimum time to collect
 - physiology and biology
 - dormancy
 - species
- process for approvals to undertake seed collection
- established communication channels and protocols
- procedures for recording and reporting workplace information.

Assessment Conditions

The following resources must be made available:

- seed collection site
- tools and equipment required to collect seed
- relevant personnel for the purposes of communicating information
- organisational requirements and standards for managing seed collection.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPFGM3202 Extract seed

Modification History

Release	Comment
1	Replaces equivalent unit FPIFGM3202B Extract seed, which was first released with FPI11 Forest and Forest Products Training Package Version 1. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to extract and process native or non-native seed using an extraction unit. It includes seed storage requirements and extraction unit maintenance.

The unit applies to those who extract seed in a variety of work settings, including forest environment settings such as farms, agriculture, workshops, domestic, nurseries and local councils.

The unit applies to Forestry technician, Nursery technician, Supervisor (Forestry operations), Tree planter, Silviculturist, Arboriculture technician

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Forest Growing and Management

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for seed extraction	1.1 Review and clarify work order with appropriate personnel. 1.2 Receive and visually assess seed bearing material and ensure species is identified on container label.

	<p>1.3 Weigh and label containers with identifiers in line with site procedures.</p> <p>1.4 Store material in dry and well-ventilated conditions.</p>
2. Extract seed	<p>2.1 Plan and check seed extraction processes for safe working conditions</p> <p>2.2 Select appropriate extraction units and equipment and check for operational effectiveness.</p> <p>2.3 Operate and monitor seed extraction systems to extract maximum seed yield.</p> <p>2.4 Inspect seed capsules and reprocess as required to ensure maximum yield.</p>
3. Clean and store seed	<p>3.1 Weigh and store separated seed in line with species requirements and site procedures.</p> <p>3.2 Accurately record seed information.</p> <p>3.3 Package seed for storage with label to maintain traceability to collection source.</p>
4. Clean and maintain extraction unit	<p>4.1 Clean, maintain and calibrate extraction units and equipment.</p> <p>4.2 Dispose of residue and other waste material in line with site environmental management guidelines.</p> <p>4.3 Report abnormal operation or faults in equipment for corrective action.</p> <p>4.4 Clean and maintain work areas in line with site procedures, and organisational and environmental requirements.</p> <p>4.5 Record and report results of seed extraction process.</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

- calibrate scales, ensuring compliance with weights and measure authority.
- correctly label seeds
- complete records, reports and maintenance logs.

Range of Conditions

Not Applicable

Unit Mapping Information

FPIFGM3202B Extract seed.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPFGM3202 Extract seed

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPIFGM3202B Extract seed, which was first released with FPI11 Forest and Forest Products Training Package Version 1. This is the first release of this unit in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- apply safe and efficient techniques to identify, extract, clean and store seed in line with species requirements, work order and organisational guidelines
- operate seed extraction units and equipment including
 - kilns operated by gas, solar energy, oil or electricity
 - sieves of various sizes
 - air-drying racks and trays
 - conveyor belt
- clean, maintain and calibrate seed extraction units and equipment
- record seed species information and extraction results including
 - species name
 - weight
 - place or origin
 - container identifier.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- regulations, standards, codes of practice and established safe practices for extracting seed
- organisational and site standards, policies and procedures for extracting seed
- environmental protection requirements for extracting seed
- the cleaning maintenance and calibration of plant, tools and equipment
- hazards associated with seed extraction, processing and storage
- seed species, including native and non-native
- seed extraction processes
- identification of seed species from capsules
- storage procedures and requirements for different seed species
- procedures for recording and reporting workplace information.

Assessment Conditions

The following resources must be made available:

- manual or automated seed extraction equipment
- material with seed to be extracted
- relevant personnel for the purposes of communicating information
- documents, spreadsheets and commonly used proforma documents
- work order, workplace requirements and site standards for extracting seed.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPFGM3212 Fall trees manually (intermediate)

Modification History

Release	Comment
1	Replaces equivalent unit FPIFGM3212 Fall trees manually (intermediate), which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to assess, plan and safely carry out manual tree-felling operations using a chainsaw.

This unit covers the felling procedures for trees with a level of complexity that requires significant tree assessment and practical felling skills.

Persons competent in this unit should be able to effectively fell most trees except very large trees, and/or those with significant defects and/or characteristics that cause excessive complexity.

It applies to trees that have a diameter greater than the bar length of the chainsaw.

Trees typical to the scope of this unit may include the following characteristics:

- lean and weight distribution, which can be assessed and readily adapted to falling direction with the use of wedges and/or control with hinge-wood
- various dimensions relative to local forest size distribution
- limited visible damage or defect
- species prone to free splitting and adverse reactions during felling
- single or multi-stems
- diameter of tree greater than chainsaw bar length
- grown on terrain and slope that can add complexity to the operation

The unit applies to a non-production environment, including forest, rural and community environments.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states & territories at the time of publication, and may differ according to jurisdiction

Pre-requisite Unit

Nil

Unit Sector

Forest Growing and Management

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for felling	<p>1.1 Identify and comply with applicable work health and safety (WHS), environmental, legislative and organisational requirements relevant to felling trees</p> <p>1.2 Identify and adhere to site environmental protection measures according to relevant legislation and regulations</p> <p>1.3 Review and check job requirements with appropriate personnel</p> <p>1.4 Sharpen and adjust chainsaw or change components according to manufacturer recommendations</p> <p>1.5 Assess tree and determine felling requirements</p> <p>1.6 Identify and control potential and existing risks and hazards in the work area</p> <p>1.7 Identify trees to be retained and felled</p> <p>1.8 Establish and maintain communication with others according to WHS requirements</p>
2. Visually assess site conditions and surroundings	<p>2.1 Review terrain and slope to determine if they add complexity to the operation</p> <p>2.2 Assess general factors affecting felling requirements and detect and control specific forest or site risks and hazards</p>
3. Assess tree and plan felling	<p>3.1 Visually assess tree for felling characteristics</p> <p>3.2 Confirm tree is safe to fell</p> <p>3.3 Select tools and equipment appropriate to work requirements and check for operational effectiveness according to manufacturer recommendations</p> <p>3.4 Identify trees to be felled for size, significant defects and any characteristics causing excessive complexity</p> <p>3.5 Assess and progressively plan tree-felling sequence for individual trees</p> <p>3.6 Assess and check required falling direction and possible deviation</p> <p>3.7 Plan sequence of cuts to fell tree according to standard felling</p>

	<p>procedures</p> <p>3.8 Assess limitations of own skills in safely felling trees, identify trees considered outside own skill level and seek assistance from appropriate personnel where required</p> <p>3.9 Monitor and exclude location and activity of other personnel on the work site</p>
4. Apply tree-felling techniques	<p>4.1 Select suitable escape route and clear of growth and other obstacles according to environmental care principles and statutory requirements</p> <p>4.2 Fell individual trees using planned techniques according to site requirements, at a safe distance from other personnel in the work area</p> <p>4.3 Adjust cutting technique in response to movement and condition of tree</p> <p>4.4 Use planned escape route when tree starts to fall and monitor the fall and movement of tree on ground until determined stable</p> <p>4.5 Delay movement back into the felling area until all tree material, including from adjacent tree crowns, has fallen</p> <p>4.6 Identify and implement procedures for removal of trees that are hung-up</p> <p>4.7 Dispose of waste materials in line with environmental and operational requirements</p> <p>4.8 Detect, rectify and report blunt or damaged saw chain according to workplace procedures</p> <p>4.9 Monitor chainsaw for operational effectiveness and record and report faults, malfunctions and problems according to workplace procedures</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	<ul style="list-style-type: none"> measure and record tree height, length and diameter estimate, measure and compare height, size and distance relevant to tree felling calculate product mass of individual trees and determine fall zone
Oral communication skills to:	<ul style="list-style-type: none"> select and use appropriate spoken communication strategies with work colleagues and other personnel on site when felling trees interpret hand signals with other operators to ensure safe tree

	felling
Reading skills to:	<ul style="list-style-type: none"> • interpret: <ul style="list-style-type: none"> • workplace health and safety, industry standards and regulations for felling trees and other relevant tree felling procedures • work orders • manufacturers' maintenance recommendations.
Writing skills to:	<ul style="list-style-type: none"> • complete forms to record WHS considerations for felling trees • report equipment faults and request maintenance of equipment. • complete log book requirements
Planning and organising skills to:	<ul style="list-style-type: none"> • identify an unsafe tree. • efficiently and logically sequence the stages of preparation for and felling of trees using work order to guide activities.
Problem solving skills to:	<ul style="list-style-type: none"> • plan and apply the hierarchy of risk control • review and identify work requirements • recognise own limitations in conditions and trees for felling • identify problems and equipment faults and demonstrate appropriate response procedures

Range of Conditions

Not Applicable

Unit Mapping Information

FPIFGM3212 Fall trees manually (intermediate)

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPFGM3212 Fall trees manually (intermediate)

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPIFGM3212 Fall trees manually (intermediate), which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- comply with applicable federal, state or territory legislative and regulatory requirements and codes of practice including WHS, environmental and organisational policies and procedures relevant to felling trees at an intermediate level
- comply with organisational policies and procedures relevant to felling trees manually at an intermediate level
- comply with applicable licensing and certification requirements relevant to felling trees at an intermediate level
- effectively communicate and use safe working practices, including maintaining an awareness of other personnel activity in the work area
- assess site conditions, by applying environmental protection measures, detecting hazards and own skill level for felling trees at an intermediate level
- conduct a tree assessment
- identify structural defects and stresses in trees and the impact on felling, including exclusion of trees from hand felling due to hazardous and difficult situations for assessment, monitoring and safe falling including a crown that contains dead or broken material, entanglement or malformation
- plan a felling sequence for individual trees and preparing surroundings including escape route
- fell intermediate trees using appropriate cuts safely without damage to personnel, equipment and surrounding environment
- identify trees that are hung up

- select, prepare and maintain chainsaw equipment including recognising faults, problems and malfunctions
- assess, plan and safely operate chainsaw equipment to manually fell trees at an intermediate level in forest, rural and community environments
- use tree felling techniques including scarf cutting , back cutting to provide hinge-wood and the use of wedges to assist in controlling falling direction
-

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- Workplace health and safety (WHS) requirements including:
 - PPE and clothing
 - safety equipment
 - first aid equipment
 - firefighting equipment
 - hazard and risk control procedures
 - fatigue management procedures
 - appropriate signage
 - elimination of hazardous materials and substances procedures
 - safe forest practices, including required actions relating to fire
 - techniques for manual handling, including shifting, lifting and carrying
 - types and purposes of cuts to fell trees, including scarf cutting and back cutting to provide hinge-wood and maintain control of tree
- typical tree defects and how these affect tree felling activities:
 - shakes
 - insect defects
 - knots and resin pockets
 - pipe
 - drysides
- Identifying trees:
 - that contain hazards and are deemed unsafe to fell
 - considered outside own skill level
 - trees where cuts made may lead to loss of control of tree in felling
- hazards and related risks and the impact on felling trees of:
 - uneven and unstable terrain
 - unsafe trees
 - fires
 - overhead and underground services
 - excavations

- traffic
- structures
- hazardous materials
- insects and animals
- other personnel and machinery
- methods used to remove trees that are hung up and procedures for removal
- methods for assessing chain condition
- environmental protection measures to follow when felling trees related to:
 - native vegetation
 - soil and water
 - heritage and archeological artefacts
 - flora and fauna
 - geomorphologic features
 - landscape
 - external site pollution
 - recreational opportunities
 - regeneration opportunities
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing timber and other waste
- key features of these varying environmental conditions and their effects on intermediate tree felling activities:
 - general forest lean
 - ground growth
 - ground hazards and obstacles
 - ground slope
 - gullies
 - presence and density of seed and habitat trees
 - water courses
 - wet and adverse weather conditions
 - wind speed and direction
- the use of types of tools and equipment for felling trees manually, and the procedures for their safe use, operation and maintenance including:
 - warning signs
 - chainsaw and components
 - PPE and clothing
 - first aid equipment
 - maintenance requirements
 - support tools
 -

Assessment Conditions

The following resources must be made available:

- workplace location or simulated workplace of a forest environment with trees typical to the scope of this unit
- relevant personnel for the purposes of communicating information
- PPE and clothing including:
 - Safety helmet
 - Safety gloves
 - Protective footwear
 - Eye protection
 - Hearing protection
 - High visibility clothing
 - Leg protection (trousers or chaps)
- materials and equipment including:
 - warning signs
 - chainsaw and components
 - first aid equipment
 - maintenance tools and equipment
 - support tools
 - manufacturers' instructions for use and maintenance of equipment
 - radio or communication device
 - fire fighting equipment (if prescribed)
- specifications and work instructions, including
 - information and instructions relevant to tree-felling operations, including processing location details and trees to be felled and retained
 - policy and procedures for work health and safety (WHS)
 - risk assessment plan
 - general and specific environmental requirements
 - applicable state or territory logging code of practice
 - emergency and evacuation procedures
 - fire protocols

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPFGM3213 Fall trees manually (advanced)

Modification History

Release	Comment
1	Replaces equivalent unit FPIFGM3213 Fall trees manually (advanced), which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to assess, plan and safely carry out manual tree-felling operations using a chainsaw.

This unit covers the felling procedures for trees with a level of complexity that requires significant tree assessment and advanced practical felling skills.

Persons competent in this unit should be able to effectively fell trees of any size, species and condition, including those with significant defects and characteristics that cause excessive felling complexity, that are deemed safe to fell.

Trees typical to the scope of this unit may include the following characteristics:

- lean and weight distribution that adds significant complexity yet can be assessed and adapted to site requirements
- larger dimensions relative to local forest size distribution
- substantial lean
- damage or defect that requires complex felling techniques
- multi-legged, hollow butts, culls and stags
- species prone to free splitting and adverse reactions during felling
- single or complex multi-stems
- diameter of tree greater than chainsaw bar length
- grown on terrain and slope that can add significant complexity to the operation

The unit applies to a non-production environment, including forest, rural and community environments.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states & territories at the time of publication, and may differ according to jurisdiction

Pre-requisite Unit

Nil

Unit Sector

Forest Growing and Management

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for felling	1.1 Identify and comply with applicable work health and safety (WHS), environmental, legislative and organisational requirements relevant to felling trees 1.2 Identify and adhere to site environmental protection measures according to relevant legislation and regulations 1.3 Review job requirements and check with appropriate personnel 1.4 Select tools and equipment appropriate to work requirements and check for operational effectiveness according to manufacturer recommendations 1.5 Sharpen and adjust chainsaw or change components according to manufacturer recommendations 1.6 Identify and control potential and existing risks and hazards in the work area 1.7 Identify trees to be felled as being safe to fell 1.8 Establish and maintain communication with others according to OHS requirements
2. Visually assess site conditions and surroundings	2.1 Review terrain and slope to determine if they add significant complexity to the operation 2.2 Assess general factors affecting felling requirements and detect and control specific forest or site risks and hazards 2.3 Assess and progressively plan tree-felling sequence for individual trees
3. Assess tree and plan felling	3.1 Locate and visually assess tree for felling characteristics 3.2 Confirm tree is safe to fell 3.3 Assess and check required falling direction and possible deviation 3.4 Plan sequence of cuts to fell tree according to standard felling procedures 3.5 Assess limitations of own skills in safely felling trees, identify trees considered outside own skill level and seek assistance from

	<p>appropriate personnel where required</p> <p>3.6 Monitor and exclude location and activity of other personnel on the work site</p>
4. Apply tree-felling techniques	<p>4.1 Select suitable escape route and clear of growth and other obstacles according to environmental care principles and statutory requirements</p> <p>4.2 Fell individual trees using planned techniques according to site requirements, at a safe distance from other personnel in the work area</p> <p>4.3 Adjust cutting technique in response to movement and condition of tree</p> <p>4.4 Use planned escape route when tree starts to fall and monitor the fall and movement of tree on ground until determined stable</p> <p>4.5 Delay movement back into the felling area until all tree material, including from adjacent tree crowns, has fallen</p> <p>4.6 Identify and implement procedures for removal of trees that are hung-up</p> <p>4.7 Dispose of waste materials in line with environmental and operational requirements</p> <p>4.8 Detect, rectify and report blunt or damaged saw chain according to workplace procedures</p> <p>4.9 Monitor chainsaw for operational effectiveness and record and report faults, malfunctions and problems according to workplace procedures</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	<ul style="list-style-type: none"> measure and record tree height, length and diameter estimate, measure and compare height, size and distance relevant to tree felling calculate product mass of individual trees and determine fall zone
Oral communication skills to:	<ul style="list-style-type: none"> select and use appropriate spoken communication strategies with work colleagues and other personnel on site when felling trees interpret hand signals with other operators to ensure safe tree felling
Reading skills to:	<ul style="list-style-type: none"> interpret: <ul style="list-style-type: none"> workplace health and safety, industry standards and

	<p>regulations for felling trees and other relevant tree felling procedures</p> <ul style="list-style-type: none"> • work orders • manufacturers maintenance recommendations
Writing skills to:	<ul style="list-style-type: none"> • complete forms to record WHS considerations for felling trees • report equipment faults and request maintenance of equipment. • complete log book requirements
Planning and organising skills to:	<ul style="list-style-type: none"> • identify an unsafe tree. • efficiently and logically sequence the stages of preparation for and felling of trees using work order to guide activities.
Problem solving skills to:	<ul style="list-style-type: none"> • plan and apply the hierarchy of risk control • review and identify work requirements • recognise own limitations in conditions and trees for felling • identify problems and equipment faults and demonstrate appropriate response procedures

Range of Conditions

Not Applicable

Unit Mapping Information

FPIFGM3213 Fall trees manually (advanced)

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPFGM3213 Fall trees manually (advanced)

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPIFGM3213 Fall trees manually (advanced), which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- comply with applicable federal, state or territory legislative and regulatory requirements and codes of practice including OHS, environmental and organisational policies and procedures relevant to felling trees at an advanced level
- comply with applicable licensing or certification requirements relevant to felling trees manually at an advanced level
- effectively communicate and use safe working practices, including maintaining an awareness of other personnel activity in the work area
- assess site conditions, by applying environmental protection measures, detecting hazards and own skill level for felling trees at an advanced level
- conduct a tree assessment
- identify structural defects and stresses in trees and the impact on felling, including exclusion of trees from hand felling due to hazardous and difficult situations for assessment, monitoring and safe falling including a crown that contains dead or broken material, entanglement or malformation
- plan a felling sequence for individual trees and preparing surroundings including escape route
- fell advanced trees using appropriate cuts safely without damage to personnel, equipment and surrounding environment

- identify trees that are hung up
- select, prepare and maintain chainsaw equipment including recognising faults, problems and malfunctions
- assess, plan and safely operate chainsaw equipment to manually fell trees at an advanced level in forest, rural and community environments
- use tree felling techniques including scarf cutting , back cutting to provide hinge-wood and the use of wedges to assist in controlling falling direction

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- workplace health and safety (WHS) requirements including:
 - PPE and clothing
 - safety equipment
 - first aid equipment
 - firefighting equipment
 - hazard and risk control procedures
 - fatigue management procedures
 - appropriate signage
 - elimination of hazardous materials and substances procedures
 - safe forest practices, including required actions relating to fire
 - techniques for manual handling, including shifting, lifting and carrying
- types and purposes of cuts to fell trees, including scarf cutting and back cutting to provide hinge-wood and maintain control of tree
- typical tree defects and how these affect tree felling activities:
 - shakes
 - insect defects
 - knots and resin pockets
 - pipe
 - drysides
- Identifying trees:
 - that contain hazards and are deemed unsafe to fell
 - considered outside own skill level
 - trees where cuts made may lead to loss of control of tree in felling
- hazards and related risks and the impact on felling trees of:
 - uneven and unstable terrain
 - unsafe trees
 - fires
 - overhead and underground services
 - excavations
 - traffic

- structures
- hazardous materials
- insects and animals
- other personnel and machinery
- methods used to remove trees that are hung up and procedures for removal
- methods for assessing chain condition
- environmental protection measures to follow when felling trees related to:
 - native vegetation
 - soil and water
 - heritage and archeological artefacts
 - flora and fauna
 - geomorphologic features
 - landscape
 - external site pollution
 - recreational opportunities
 - regeneration opportunities
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing timber and other waste
- key features of these varying environmental conditions and their effects on advanced tree felling activities:
 - general forest lean
 - ground growth
 - ground hazards and obstacles
 - ground slope
 - gullies
 - presence and density of seed and habitat trees
 - water courses
 - wet and adverse weather conditions
 - wind speed and direction
- the use of types of tools and equipment for felling trees manually, and the procedures for their safe use, operation and maintenance including:
 - warning signs
 - chainsaw and components
 - PPE and clothing
 - first aid equipment
 - maintenance requirements
 - support tools
 -

Assessment Conditions

The following resources must be made available:

- workplace location or simulated workplace of a forest environment with trees typical to the scope of this unit
- relevant personnel for the purposes of communicating information
- PPE and clothing including:
 - safety helmet
 - safety gloves
 - protective footwear
 - eye protection
 - hearing protection
 - high visibility clothing
 - leg protection (trousers or chaps)
- materials and equipment including:
 - warning signs
 - chainsaw and components
 - first aid equipment
 - maintenance tools and equipment
 - support tools
 - manufacturers' instructions for use and maintenance of equipment
 - radio or communication device
 - fire fighting equipment (if prescribed)
- specifications and work instructions, including
 - information and instructions relevant to tree-felling operations, including processing location details and trees to be felled and retained
 - policy and procedures for work health and safety (WHS)
 - risk assessment plan
 - general and specific environmental requirements
 - applicable state or territory logging code of practice
 - emergency and evacuation procedures
 - fire protocols

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPFGM6203 Manage sustainable tree inventory

Modification History

Release	Comment
1	Replaces superseded equivalent FPIFGM6203 Manage sustainable tree inventory which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.

Application

This unit of competency describes the outcomes required to develop a tree inventory plan to manage an inventory of forestry timber assets. The unit applies to those people who manage forests for enterprises but may also apply to people who have responsibility for sustainable tree management in urban or rural enterprises.

The unit applies to job roles including Forest Auditor, Forest Planner, Environmental Manager, Environmental Planner Forest Sustainability Manager And Sustainability Manager.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Forest Growing and Management

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Conduct risk assessment	1.1 Research and analyse sustainable tree management

ELEMENTS	PERFORMANCE CRITERIA
for managing tree inventory	<p>requirements.</p> <p>1.2 Identify resources and site characteristics.</p> <p>1.3 Research and assess external influences on tree inventory.</p> <p>1.4 Identify risks and potential outcomes related to identified resources and site characteristics and document risk management strategy.</p>
2. Obtain approvals for development of tree inventory plan	<p>2.1 Consult stakeholders and obtain support for development of tree inventory plan and management approach.</p> <p>2.2 Obtain approval for identified inventory plan and management approach.</p>
3. Prepare tree inventory plan for sustainable forest management	<p>3.1 Identify administrative tools, physical resources and recording methodology.</p> <p>3.2 Identify forest estate and associated management requirements.</p> <p>3.3 Forecast required human and financial resources to manage inventory.</p> <p>3.4 Establish quality assurance practices for collecting, documenting and verifying data.</p> <p>3.5 Clearly document plan and communicate to appropriate personnel.</p>
4. Manage the implementation of tree inventory plan	<p>4.1 Explain inventory plan requirements and responsibilities to participating stakeholders.</p> <p>4.2 Provide stakeholder support to ensure quality outcomes and objectives are met.</p> <p>4.3 Monitor finances and resources and maintain record keeping systems.</p> <p>4.4 Monitor risks and implement contingency management processes.</p>
5. Evaluate tree inventory plan	<p>5.1 Collect, analyse and store data about tree inventory in line with organisational procedures.</p> <p>5.2 Identify and investigate variations in tree inventory outcomes and objectives.</p> <p>5.3 Consult appropriate stakeholders on variation between desired results and actual outcomes.</p> <p>5.4 Evaluate outcomes and processes against tree inventory plan.</p>

ELEMENTS	PERFORMANCE CRITERIA
	5.5 Prepare recommendations for future plans based on consultation and analysis.

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	<ul style="list-style-type: none"> Analyse complex numerical data involving areas, ratios, percentages, volumes, lengths and diameters.
Oral communication skills to:	<ul style="list-style-type: none"> Hold high-level consultative discussions to generate ideas for and negotiate content of tree inventory plans.
Reading skills to:	<ul style="list-style-type: none"> Interpret complex information in a range of source documents to research and develop tree inventory plans.
Writing skills to:	<ul style="list-style-type: none"> Develop and document comprehensive tree inventory plans. Report on effectiveness of inventory management approach and potential improvements including rationale for recommendations.
Planning and organising skills to:	<ul style="list-style-type: none"> Source, collect and organise a range of data to inform plan content. Plan and manage own timing and productivity to plan, implement and evaluate management of tree inventory.
Technology skills to:	<ul style="list-style-type: none"> Use a computer, keyboard and software to prepare plans and reports.

Unit Mapping Information

FPIFGM6203 Manage sustainable tree inventory

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPFGM6203 Manage sustainable tree inventory

Modification History

Release	Comment
1	<p>Replaces superseded equivalent FPIFGM6203 Manage sustainable tree inventory which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including 'Required Skills and Knowledge, Evidence Guide and Range Statement'.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit, and must be able to provide evidence that they can:

- Develop a comprehensive written plan to manage sustainability tree inventory for a given site.
- Incorporate these inclusions in the plan:
 - risk management strategy to manage and minimise risks
 - quality assurance practices for collecting, documenting and verifying data
 - required data collection and administrative tools
 - required human resources and responsibilities
 - data recording methodology
 - recording and reporting procedures.
- For a specified period, analyse data and record and report on the following types of outcomes:
 - established growth rates
 - established volumes
 - forecasted outputs
 - forecasted sustainability
 - monitored sustainability
 - preserved forest sustainability.
- Evaluate the effectiveness of the tree inventory plan and complete a report including recommendations for improving future plans and tree management approach.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- Role of wood or waste products in generating renewable energy through biomass.
- Behavioural characteristics of a range of tree species.
- Silvicultural practices associated with management objectives.
- Key sustainability indicators for tree management.
- Key content and application of mensuration theory.
- Risks involved managing a sustainable tree inventory and methods used to minimise impacts, including:
 - biological
 - pests and diseases
 - weather and climate change
 - economic risk
 - erosion
 - fire
 - market failure
 - natural disaster
 - sabotage
 - water
 - structural failure.
- External influences and how they impact on managing a sustainable tree inventory, including:
 - international and Australian forestry and environmental standards
 - state, territory and local laws
 - advisory standards and codes of practice
 - land tenure and access
 - neighbouring tenure and access
 - habitat
 - cultural and heritage sites
 - agriforestry arrangements
 - fire management
 - data availability
 - human resource skills and availability.
- Purpose, features and application of inventory management tools, including:
 - measuring or diameter tapes
 - dataloggers and laptops
 - log sheets
 - compass
 - clinometer
 - height sticks

- prisms
- mobile GPS
- maps
- survey and title data
- survey equipment
- gantt charts
- flow charts.
- Key features and benefits of different recording methodologies, including:
 - dataloggers
 - log sheets
 - manual or electronic data transfer
 - analytical techniques and formulae
 - radio, UV, laser advanced technology
 - digital dataloggers and laptop computers
 - desk or field surveys
 - testing and calibration records.
- Organisational procedures specific to managing sustainable tree inventory:
 - communication reporting lines
 - database management and document control.

Assessment Conditions

The following resources must be made available:

- Computers, keyboards, printers and software used to document plans and reports.
- Administrative tools and equipment for managing sustainable tree inventory:
 - filing systems
 - field templates
 - operational manual
 - land access information
 - gantt charts
 - flow charts.
- Documents and commonly used proformas used to document risk management strategies and tree inventory plans.
- Organisational procedures for managing sustainable tree inventory.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- Hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

FWPHAR2206 Operate a mobile chipper/mulcher

Modification History

Release	Comment
1	Replaces equivalent unit FPIHAR2206B Operate a mobile chipper/mulcher, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to operate a mobile chipping or mulching unit to chip or mulch timber refuse such as branches and other timber waste left after felling operations. Work is completed in a forest or forest farm setting.

The unit applies to those who operate a mobile chipping or mulching unit in a forest environment.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Harvesting and Haulage

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for mobile chipping or mulching.	1.1 Review work order and where required check with appropriate personnel. 1.2 Select appropriate personal protective and other equipment and check for operational effectiveness. 1.3 Identify type and quantity of timber refuse to be chipped or

	<p>mulched.</p> <p>1.4 Plan chipping or mulching activities in line with work order.</p>
2. Chip or mulch timber refuse	<p>2.1 Reject timber refuse assessed as unsuitable for chipping or mulching and dispose of or recycle in line with environmental protection practices.</p> <p>2.2 Use equipment in line with organisational safety procedures, manufacturer's instructions and environmental protection requirements.</p> <p>2.3 Position, secure and set up chipping and mulching unit in line with manufacturer's specifications and required size.</p> <p>2.4 Direct timber refuse into chipper or mulcher at rate applicable to machine capacity.</p> <p>2.5 Chip timber refuse to chip sizes specified in work order.</p> <p>2.6 Respond to critical situations requiring emergency shutdown to prevent personal injury or damage to machine or product.</p>
3. Complete operator maintenance.	<p>3.1 Follow organisational safety procedures to lock out equipment.</p> <p>3.2 Check cutters for wear and damage at appropriate or recommended intervals.</p> <p>3.3 Remove, replace and dispose of cutters in line with manufacturer's recommendations, site procedures and environmental protection practices.</p> <p>3.4 Complete operator maintenance tasks in line with manufacturer's recommendations and site procedures.</p> <p>3.5 Record and report production outcomes and equipment faults to appropriate personnel.</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	<ul style="list-style-type: none"> identify quantities of required material within work orders read basic numerical machine settings and choose according to chip size complete routine production records involving quantities tallied against orders.
Oral communication skills to:	<ul style="list-style-type: none"> ask questions and actively listen to clarify contents of work orders.

Reading skills to:	<ul style="list-style-type: none"> interpret workplace health and safety and other organisational procedures work orders manufacturers' instructions and maintenance recommendations.
Writing skills to:	<ul style="list-style-type: none"> complete accurate basic records for production outcomes and equipment faults.
Planning and organising skills to:	<ul style="list-style-type: none"> efficiently and logically sequence the stages of preparation and processing activities using work order to guide activities.

Range of Conditions

Not Applicable

Unit Mapping Information

FPIHAR2206B Operate a mobile chipper/mulcher

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPHAR2206 Operate a mobile chipper/mulcher

Modification History

Release	Comment
1	<p>Replaces equivalent unit FPIHAR2206B Operate a mobile chipper/mulcher, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- complete chipping and mulching jobs in line with individual work orders which prescribe different quantities of timber refuse and different chip sizes
- complete operator maintenance, including fuelling, safety checks, cleaning, lubricating, operational adjustments, cutter inspection, removal, disposal and replacement to manufacturer recommendations and site procedures.
-

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- environmental protection practices for forest and forest farm settings:
 - reducing water and energy use
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing timber
- types of timber refuse suitable and unsuitable for chipping and mulching
- purpose, features and operation of mobile chipping and mulching units
- capacity of chippers and mulchers to cope with differing sizes and diameters of branch
- feed rates at which waste is fed into chippers and mulchers to optimise output without damaging or blocking machinery
- methods for checking cutting blade condition

- operator maintenance procedures including for fuelling, safety checks, cleaning, lubricating, operational adjustments, cutter inspection, removal, disposal and replacement
- common hazards associated with chipping and mulching operations and methods to minimise associated risks
- organisational procedures specific to chipping and mulching timber refuse:
 - workplace health and safety with particular emphasis on equipment lock out and use of personal protective equipment
 - communication reporting lines
 - recording and reporting production outcomes and equipment faults.
 -

Assessment Conditions

The following resources must be made available:

- mobile chipping and mulching units feeding into a truck or other form of transportation:
 - truck mounted
 - trailer mounted
- tools and consumables for operator maintenance
- tools and equipment for removing and replacing cutters
- consumable cutters
- personal protective equipment suitable for chipping and mulching timber refuse
- timber refuse for processing
- manufacturers':
 - instructions for equipment use
 - recommendations for operator maintenance
- work order with specific instructions for chipping or mulching timber refuse
- template documents for recording production outcomes and equipment faults
- relevant personnel for the purposes of communicating information
- organisational procedures for chipping and mulching timber refuse.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence
-

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

HLTAID001 Provide cardiopulmonary resuscitation

Modification History

Release	Notes
Release 5	Updated: <ul style="list-style-type: none"> • assessor requirements statement • foundation skills lead in statement • licensing statement • modification history to reflect 2012 standards Equivalent outcome.
Release 4	Updated mapping information. Changes to assessment requirements. Equivalent outcome.
Release 3	Updated mapping information. Equivalent outcome.
Release 2	Updated mapping information. Equivalent outcome.
Release 1	This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages. Significant changes to elements and performance criteria. Revised evidence requirements, including volume and frequency of assessment.

Application

This unit describes the skills and knowledge required to perform cardiopulmonary resuscitation (CPR) in line with the Australian Resuscitation Council (ARC) Guidelines.

This unit applies to all workers who may be required to provide CPR, in a range of situations, including community and workplace settings.

Specific licensing /regulatory requirements relating to this competency, including requirements for refresher training should be obtained from the relevant national/state/territory Work Health and Safety Regulatory Authorities.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

Elements define the essential outcomes.

Performance criteria specify the level of performance needed to demonstrate achievement of the element.

1. Respond to an emergency situation

- 1.1 Recognise an emergency situation
- 1.2 Identify, assess and minimise immediate hazards to health and safety of self and others
- 1.3 Assess the casualty and recognise the need for CPR
- 1.4 Seek assistance from emergency response services

2. Perform CPR procedures

- 2.1 Perform cardiopulmonary resuscitation in accordance with ARC guidelines
- 2.2 Display respectful behaviour towards casualty
- 2.3 Operate automated external defibrillator (AED) according to manufacturer's instructions

3. Communicate details of the incident

- 3.1 Accurately convey incident details to emergency response services
- 3.2 Report details of incident to workplace supervisor as appropriate
- 3.3 Maintain confidentiality of records and information in line with statutory and/or organisational policies

Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

Assessment Requirements for HLTAID001 Provide cardiopulmonary resuscitation

Modification History

Release	Notes
Release 5	<p>Updated:</p> <ul style="list-style-type: none"> • assessor requirements statement • foundation skills lead in statement • licensing statement • modification history to reflect 2012 standards <p>Equivalent outcome.</p>
Release 4	<p>Updated mapping information. Changes to assessment requirements. Equivalent outcome.</p>
Release 3	<p>Updated mapping information. Equivalent outcome.</p>
Release 2	<p>Updated mapping information. Equivalent outcome.</p>
Release 1	<p>This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to elements and performance criteria.</p> <p>Revised evidence requirements, including volume and frequency of assessment.</p>

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role.

There must be evidence that the candidate has completed the following tasks in line with state/territory regulations, first aid codes of practice, Australian Resuscitation Council (ARC) guidelines and workplace procedures:

- Followed DRSABCD in line with ARC guidelines, including:
 - performed at least 2 minutes of uninterrupted single rescuer cardiopulmonary resuscitation (CPR) (5 cycles of both compressions and ventilations) on an adult resuscitation manikin placed on the floor

- performed at least 2 minutes of uninterrupted single rescuer CPR (5 cycles both compressions and ventilations) on an infant resuscitation manikin placed on a firm surface
- responded appropriately in the event of regurgitation or vomiting
- managed the unconscious breathing casualty
- followed single rescue procedure, including the demonstration of a rotation of operators with minimal interruptions to compressions
- followed the prompts of an automated external defibrillator (AED)
- Responded to at least one simulated first aid scenario contextualised to the candidate's workplace/community setting, including:
 - demonstrated safe manual handling techniques
 - provided an accurate verbal or written report of the incident

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the work role. This includes knowledge of:

- State/Territory regulations, first aid codes of practice and workplace procedures including:
 - ARC Guidelines relevant to the provision of CPR
 - safe work practices to minimise risks and potential hazards
 - infection control principles and procedures, including use of standard precautions
 - requirements for currency of skill and knowledge
- Legal, workplace and community considerations, including:
 - awareness of potential need for stress-management techniques and available support following an emergency situation
 - duty of care requirements
 - respectful behaviour towards a casualty
 - own skills and limitations
 - consent
 - privacy and confidentiality requirements
 - importance of debriefing
- Considerations when providing CPR, including:
 - airway obstruction due to body position
 - appropriate duration and cessation of CPR
 - appropriate use of an AED
 - chain of survival
 - standard precautions
- Basic anatomy and physiology relating to:
 - how to recognise a person is not breathing normally
 - chest

- response/consciousness
- upper airway and effect of positional change

Assessment Conditions

Skills must be demonstrated working individually in an environment that provides realistic in-depth, industry-validated scenarios and simulations to assess candidates' skills and knowledge.

Assessment resources must include:

- adult and infant resuscitation manikins in line with ARC Guidelines for the purpose of assessment of CPR procedures
- AED training device
- workplace injury, trauma and/or illness record, or other appropriate workplace incident report form

Simulated assessment environments must simulate the real-life working environment where these skills and knowledge would be performed, with all the relevant equipment and resources of that working environment.

Assessor Requirements

Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors.

In addition hold current first aid certificate HLTAID003 or higher.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

HLTAID002 Provide basic emergency life support

Modification History

Release	Comments
Release 4	<p>Updated:</p> <ul style="list-style-type: none"> • assessor requirements statement • foundation skills lead in statement • licensing statement • modification history to reflect 2012 standards <p>Equivalent outcome.</p>
Release 3	<p>Updated mapping information. Changes to assessment requirements. Equivalent outcome.</p>
Release 2	<p>Minor corrections to formatting to improve readability. Equivalent competency outcome.</p>
Release 1	<p>This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to elements and performance criteria, changes to scope of unit. Changes to evidence requirements relative to revised scope of unit.</p>

Application

This unit describes the skills and knowledge required to recognise and respond to life-threatening emergencies in line with the Australian Resuscitation Council (ARC) Guidelines.

This unit applies to all workers who may be required to provide an emergency response in a range of situations, including community and workplace settings.

Specific licensing /regulatory requirements relating to this competency, including requirements for refresher training should be obtained from the relevant national/state/territory Work Health and Safety Regulatory Authorities.

Elements and Performance Criteria

ELEMENT

Elements define the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria specify the level of performance needed to demonstrate achievement of the element.

- | | |
|---|---|
| 1. Respond to an emergency situation | 1.1 Recognise an emergency situation
1.2 Identify, assess and minimise immediate hazards to health and safety of self and others
1.3 Assess the casualty and recognise the need for first aid response
1.4 Assess the situation and seek assistance from emergency response services |
| 2. Apply appropriate first aid procedures | 2.1 Perform cardiopulmonary resuscitation (CPR) in accordance with ARC guidelines
2.2 Provide first aid in accordance with established first aid principles
2.3 Display respectful behaviour towards casualty
2.4 Obtain consent from casualty where possible
2.5 Use available resources and equipment to make the casualty as comfortable as possible
2.6 Operate first aid equipment according to manufacturer's instructions
2.7 Monitor the casualty's condition and respond in accordance with first aid principles |
| 3. Communicate details of the incident | 3.1 Accurately convey incident details to emergency response services
3.2 Report details of incident to workplace supervisor as appropriate
3.3 Maintain confidentiality of records and information in line with statutory and/or organisational policies |

Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

Assessment Requirements for HLTAID002 Provide basic emergency life support

Modification History

Release	Comments
Release 4	<p>Updated:</p> <ul style="list-style-type: none"> • assessor requirements statement • foundation skills lead in statement • licensing statement • modification history to reflect 2012 standards <p>Equivalent outcome.</p>
Release 3	<p>Updated mapping information. Changes to assessment requirements. Equivalent outcome.</p>
Release 2	<p>Minor corrections to formatting to improve readability. Equivalent competency outcome.</p>
Release 1	<p>This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to elements and performance criteria, changes to scope of unit. Changes to evidence requirements relative to revised scope of unit.</p>

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role.

There must be evidence that the candidate has completed the following tasks in line with state/territory regulations, first aid codes of practice, Australian Resuscitation Council (ARC) guidelines and workplace procedures:

- Followed DRSABCD in line with ARC guidelines, including:
 - performed at least 2 minutes of uninterrupted single rescuer cardiopulmonary resuscitation (CPR) (5 cycles of both compressions and ventilations) on an adult resuscitation manikin placed on the floor

- performed at least 2 minutes of uninterrupted single rescuer CPR (5 cycles both compressions and ventilations) on an infant resuscitation manikin placed on a firm surface
- responded appropriately in the event of regurgitation or vomiting
- managed the unconscious breathing casualty
- followed single rescue procedure, including the demonstration of a rotation of operators with minimal interruptions to compressions
- followed the prompts of an Automated External Defibrillator (AED)
- Responded to at least one simulated first aid scenario contextualised to the candidate's workplace/community setting, including:
 - demonstrated safe manual handling techniques
 - provided an accurate verbal or written report of the incident
- Applied first aid procedures for the following:
 - allergic reaction
 - anaphylaxis
 - bleeding control
 - choking and airway obstruction
 - respiratory distress, including asthma
 - shock

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the work role. This includes knowledge of:

- State/Territory regulations, first aid codes of practice and workplace procedures including:
 - ARC Guidelines relevant to provision of CPR and first aid
 - safe work practices to minimise risks and potential hazards
 - Infection control principles and procedures, including use of standard precautions
 - requirements for currency of skill and knowledge
- legal, workplace and community considerations, including:
 - awareness of potential need for stress-management techniques and available support following an emergency situation
 - duty of care requirements
 - respectful behaviour towards a casualty
 - own skills and limitations
 - consent
 - privacy and confidentiality requirements
 - importance of debriefing
- considerations when providing basic emergency life support, including:
 - airway obstruction due to body position

- appropriate duration and cessation of CPR
- appropriate use of an AED
- chain of survival
- standard precautions
- principles and procedures for first aid management of the following scenarios:
 - allergic reaction
 - anaphylaxis
 - bleeding control
 - cardiac conditions, including chest pain
 - choking and airway obstruction
 - respiratory distress, including asthma
 - shock
 - stroke
- basic anatomy and physiology relating to:
 - considerations in provision of first aid for specified conditions
 - chest
 - how to recognise a person is not breathing normally
 - response/consciousness
 - upper airway and effect of positional change

Assessment Conditions

Skills must be demonstrated working individually in an environment that provides realistic in-depth, industry-validated scenarios and simulations to assess candidates' skills and knowledge.

Assessment resources must include:

- adult and infant resuscitation manikins in line with ARC Guidelines for the purpose of assessment of CPR procedures
- adrenaline auto-injector training device
- AED training device
- placebo bronchodilator and spacer device
- roller bandages
- triangular bandage
- workplace First Aid kit
- workplace injury, trauma and/or illness record, or other appropriate workplace incident report form
- wound dressing

Simulated assessment environments must simulate the real-life working environment where these skills and knowledge would be performed, with all the relevant equipment and resources of that working environment.

Assessor requirements

Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors.

In addition hold current first aid certificate HLTAID003 or higher.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

HLTAID003 Provide first aid

Modification History

Release	Comments
Release 6	Updated: <ul style="list-style-type: none"> • assessor requirements statement • foundation skills lead in statement • licensing statement • modification history to reflect 2012 standards Equivalent outcome.
Release 5	Updated mapping information. Changes to assessment requirements. Equivalent outcome.
Release 4	Updated mapping information. Equivalent outcome.
Release 3	Updated mapping information.
Release 2	Minor corrections to formatting to improve readability. Equivalent competency outcome.
Release 1	This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages. Significant changes to elements and performance criteria, changes to scope of unit. New evidence requirements for assessment. Removal of prerequisite unit.

Application

This unit describes the skills and knowledge required to provide a first aid response to a casualty. The unit applies to all workers who may be required to provide a first aid response in a range of situations, including community and workplace settings.

Specific licensing /regulatory requirements relating to this competency, including requirements for refresher training should be obtained from the relevant national/state/territory Work Health and Safety Regulatory Authorities.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

Elements define the essential outcomes.

Performance criteria specify the level of performance needed to demonstrate achievement of the element.

1. Respond to an emergency situation

- 1.1 Recognise an emergency situation
- 1.2 Identify, assess and manage immediate hazards to health and safety of self and others
- 1.3 Assess the casualty and recognise the need for first aid response
- 1.4 Assess the situation and seek assistance from emergency response services

2. Apply appropriate first aid procedures

- 2.1 Perform cardiopulmonary resuscitation (CPR) in accordance with Australian Resuscitation Council (ARC) guidelines
- 2.2 Provide first aid in accordance with established first aid principles
- 2.3 Display respectful behaviour towards casualty
- 2.4 Obtain consent from casualty where possible
- 2.5 Use available resources and equipment to make the casualty as comfortable as possible
- 2.6 Operate first aid equipment according to manufacturer's instructions
- 2.7 Monitor the casualty's condition and respond in accordance with first aid principles

3. Communicate details of the incident

- 3.1 Accurately convey incident details to emergency response services
- 3.2 Report details of incident to workplace supervisor as appropriate
- 3.3 Maintain confidentiality of records and information in line with statutory and/or organisational policies

ELEMENT**PERFORMANCE CRITERIA**

Elements define the essential outcomes.

Performance criteria specify the level of performance needed to demonstrate achievement of the element.

4. Evaluate the incident and own performance

4.1 Recognise the possible psychological impacts on self and other rescuers involved in critical incidents

4.2 Participate in debriefing to address individual needs

Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

Assessment Requirements for HLTAID003 Provide first aid

Modification History

Release	Comments
Release 6	Updated: <ul style="list-style-type: none"> • assessor requirements statement • foundation skills lead in statement • licensing statement • modification history to reflect 2012 standards Equivalent outcome.
Release 5	Updated mapping information. Changes to assessment requirements. Equivalent outcome.
Release 4	Updated mapping information. Equivalent outcome.
Release 3	Updated mapping information.
Release 2	Minor corrections to formatting to improve readability. Equivalent competency outcome.
Release 1	This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages. Significant changes to elements and performance criteria, changes to scope of unit. New evidence requirements for assessment. Removal of prerequisite unit.

Performance Evidence

e candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role.

There must be evidence that the candidate has completed the following tasks in line with state/territory regulations, first aid codes of practice, Australian Resuscitation Council (ARC) guidelines and workplace procedures:

- Followed DRSABCD in line with ARC guidelines, including:

- performed at least 2 minutes of uninterrupted single rescuer cardiopulmonary resuscitation (CPR) (5 cycles of both compressions and ventilations) on an adult resuscitation manikin placed on the floor
- performed at least 2 minutes of uninterrupted single rescuer CPR (5 cycles both compressions and ventilations) on an infant resuscitation manikin placed on a firm surface
- responded appropriately in the event of regurgitation or vomiting
- managed the unconscious breathing casualty
- followed single rescue procedure, including the demonstration of a rotation of operators with minimal interruptions to compressions
- followed the prompts of an Automated External Defibrillator (AED)
- Responded to at least two simulated first aid scenarios contextualised to the candidate's workplace/community setting, including:
 - conducted a visual and verbal assessment of the casualty
 - demonstrated safe manual handling techniques
 - post-incident debrief and evaluation
 - provided an accurate verbal or written report of the incident
- Applied first aid procedures for the following:
 - allergic reaction
 - anaphylaxis
 - bleeding control
 - choking and airway obstruction
 - envenomation, using pressure immobilisation
 - fractures, sprains and strains, using arm slings, roller bandages or other appropriate immobilisation techniques
 - respiratory distress, including asthma
 - shock

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the work role. This includes knowledge of:

- State/Territory regulations, first aid codes of practice and workplace procedures including:
 - ARC Guidelines relevant to provision of CPR and first aid
 - safe work practices to minimise risks and potential hazards
 - infection control principles and procedures, including use of standard precautions
 - requirements for currency of skill and knowledge
- legal, workplace and community considerations including:
 - awareness of potential need for stress-management techniques and available support following an emergency situation
 - duty of care requirements

- respectful behaviour towards a casualty
- own skills and limitations
- consent
- privacy and confidentiality requirements
- importance of debriefing
- considerations when providing first aid including:
 - airway obstruction due to body position
 - appropriate duration and cessation of CPR
 - appropriate use of an AED
 - chain of survival
 - standard precautions
 - how to conduct a visual and verbal assessment of the casualty
- principles and procedures for first aid management of the following scenarios:
 - abdominal injuries
 - allergic reaction
 - anaphylaxis
 - basic care of a wound
 - bleeding control
 - burns
 - cardiac conditions, including chest pain
 - choking and airway obstruction
 - crush injuries
 - diabetes
 - dislocations
 - drowning
 - envenomation
 - environmental impact, including hypothermia, hyperthermia, dehydration and heat stroke
 - eye and ear injuries
 - fractures
 - febrile convulsions
 - head, neck and spinal injuries
 - minor skin injuries
 - needle stick injuries
 - poisoning and toxic substances
 - respiratory distress, including asthma
 - seizures, including epilepsy
 - shock
 - soft tissue injuries, including strains and, sprains
 - stroke

- unconsciousness
- basic anatomy and physiology relating to:
 - how to recognise a person is not breathing normally
 - chest
 - response/consciousness
 - upper airway and effect of positional change
 - considerations in provision of first aid for specified conditions

Assessment Conditions

Skills must be demonstrated working individually in an environment that provides realistic in-depth, industry-validated scenarios and simulations to assess candidates' skills and knowledge.

Assessment resources must include:

- adult and infant resuscitation manikins in line with ARC Guidelines for the purpose of assessment of CPR procedures
- adrenaline auto-injector training device
- AED training device
- placebo bronchodilator and spacer device
- roller bandages
- triangular bandages
- workplace First Aid kit
- workplace injury, trauma and/or illness record, or other appropriate workplace incident report form for written reports
- wound dressings

Simulated assessment environments must simulate the real-life working environment where these skills and knowledge would be performed, with all the relevant equipment and resources of that working environment.

Assessor requirements

Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

HLTAID005 Provide first aid in remote situations

Modification History

Release	Comments
Release 5	<p>Updated:</p> <ul style="list-style-type: none"> • assessor requirements statement • foundation skills lead in statement • licensing statement • modification history to reflect 2012 standards <p>Equivalent outcome.</p>
Release 4	<p>Updated mapping information. Changes to assessment requirements. Equivalent outcome.</p>
Release 3	<p>Updated mapping information. Equivalent outcome.</p>
Release 2	<p>Minor changes to formatting to improve readability.</p>
Release 1	<p>This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the New Standards for Training Packages.</p> <p>Significant changes to elements and performance criteria, changes to scope of unit.</p> <p>New evidence requirements for assessment, including use of contextualised remote scenarios.</p>

Application

This unit describes the skills and knowledge required to provide first aid response and emergency life support to a casualty in a remote and/or isolated situation.

The unit applies to workers who may be required to prepare for and provide a first aid response in locations beyond the reach of timely medical assistance.

Specific licensing /regulatory requirements relating to this competency, including requirements for refresher training should be obtained from the relevant national/state/territory Work Health and Safety Regulatory Authorities.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

Elements define the essential outcomes.

Performance criteria specify the level of performance needed to demonstrate achievement of the element.

1. Respond to a remote emergency situation

- 1.1 Plan for isolated travel or work if required, accounting for expected contingencies
- 1.2 Recognise an emergency situation
- 1.3 Identify, assess and manage immediate hazards to health and safety of self and others
- 1.4 Assess the casualty and recognise the need for first aid response
- 1.5 Assess the situation and evaluate options for medical assistance
- 1.6 Evaluate options for transporting casualty or waiting for medical assistance in relation to environmental issues, risks, transport availability and casualty condition

2. Apply appropriate first aid procedures

- 2.1 Perform cardiopulmonary resuscitation (CPR) in accordance with Australian Resuscitation Council (ARC) guidelines
- 2.2 Provide first aid in accordance with established first aid principles
- 2.3 Display respectful behaviour towards casualty
- 2.4 Obtain consent from casualty where possible
- 2.5 Use available resources and equipment to make the casualty as comfortable as possible
- 2.6 Operate first aid equipment according to manufacturer's instructions
- 2.7 Monitor the casualty's condition and respond in accordance with first aid principles

3. Manage the incident

- 3.1 Seek assistance from others present to manage incident circumstances
- 3.2 Establish communication links with emergency response services and convey incident details
- 3.3 Report details of casualty condition, changes in

ELEMENT

Elements define the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria specify the level of performance needed to demonstrate achievement of the element.

condition, management and responses

3.4 Assist in the evacuation of the casualty by following directions given by emergency response services as required

3.5 Maintain confidentiality of records and information in line with statutory and/or organisational policies

4. Evaluate the incident and own performance

4.1 Recognise the possible psychological impacts on self and other rescuers involved in critical incidents

4.2 Participate in debriefing to address individual needs

Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

Assessment Requirements for HLTAID005 Provide first aid in remote situations

Modification History

Release	Comments
Release 5	<p>Updated:</p> <ul style="list-style-type: none"> • assessor requirements statement • foundation skills lead in statement • licensing statement • modification history to reflect 2012 standards <p>Equivalent outcome.</p>
Release 4	<p>Updated mapping information. Changes to assessment requirements. Equivalent outcome.</p>
Release 3	<p>Updated mapping information. Equivalent outcome.</p>
Release 2	<p>Minor changes to formatting to improve readability.</p>
Release 1	<p>This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the New Standards for Training Packages.</p> <p>Significant changes to elements and performance criteria, changes to scope of unit.</p> <p>New evidence requirements for assessment, including use of contextualised remote scenarios.</p>

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role.

There must be evidence that the candidate has completed the following tasks in line with state/territory regulations, first aid codes of practice, Australian Resuscitation Council (ARC) guidelines and workplace procedures:

- Followed DRSABCD in line with ARC guidelines, including:
 - performed at least 2 minutes of uninterrupted single rescuer cardiopulmonary resuscitation (CPR) (5 cycles of both compressions and ventilations) on an adult resuscitation manikin placed on the floor

- performed at least 2 minutes of uninterrupted single rescuer CPR (5 cycles both compressions and ventilations) on an infant resuscitation manikin placed on a firm surface
- responded appropriately in the event of regurgitation or vomiting
- managed the unconscious breathing casualty
- followed single rescue procedure, including the demonstration of a rotation of operators with minimal interruptions to compressions
- followed the prompts of an Automated External Defibrillator (AED)
- Responded to at least three simulated first aid scenarios contextualised to the candidate's remote and/or isolated situation:
 - demonstrated safe manual handling techniques
 - conducted a visual and verbal secondary survey assessment of the casualty
 - assessed vital signs, including respirations, pulse and temperature
 - post-incident debrief and evaluation
 - provided an accurate verbal and written report of the incident
- Applied first aid response in a remote situation for the following:
 - allergic reaction
 - anaphylaxis
 - basic care of a wound
 - bleeding control
 - choking and airway obstruction
 - envenomation, using pressure immobilisation
 - environmental impacts, including hypothermia, hyperthermia, dehydration and heat stroke
 - fractures, sprains and strains, using arm slings, roller bandages or other appropriate immobilisation techniques
 - head, neck and spinal injuries, using immobilisation principles
 - respiratory distress, including asthma
 - shock

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the work role. This includes knowledge of:

- State/Territory regulations, first aid codes of practice and workplace procedures including:
 - ARC guidelines relevant to provision of CPR and first aid
 - safe work practices to minimise risks and potential hazards
 - infection control principles and procedures, including use of standard precautions
 - requirements for currency of skill and knowledge
- legal, workplace and community considerations including:

- awareness of potential need for stress-management techniques and available support following an emergency situation
- duty of care requirements
- respectful behaviour towards a casualty
- own skills and limitations
- consent
- privacy and confidentiality requirements
- importance of debriefing
- considerations when providing first aid, including:
 - airway obstruction due to body position
 - appropriate duration and cessation of CPR
 - appropriate use of an AED
 - chain of survival
 - standard precautions
 - how to conduct a visual and verbal secondary survey assessment
 - assessment and interpretation of vital signs, including respirations, temperature and pulse
- principles and procedures for first aid management of the following scenarios, contextualised to the candidate's remote and/or isolated situation:
 - abdominal injuries
 - allergic reaction
 - anaphylaxis
 - basic care of a wound
 - bleeding control
 - burns
 - cardiac conditions, including chest pain
 - choking and airway obstruction
 - crush injuries
 - diabetes
 - dislocations
 - drowning
 - envenomation
 - environmental impact, including hypothermia, hyperthermia, dehydration and heat stroke
 - eye and ear injuries
 - febrile convulsions
 - fractures
 - head, neck and spinal injuries
 - minor skin injuries
 - needle stick injuries

- poisoning and toxic substances
- respiratory distress, including asthma
- seizures, including epilepsy
- shock
- soft tissue injuries, including sprains and strains
- stroke
- unconsciousness
- remote considerations in the provision of first aid, including:
 - typical hazards and strategies for preparing supplies to address contingencies
 - management options relating to transporting casualty, including aero-medical evacuation
 - how to identify and prepare areas for safe evacuation, including aero-medical evacuation
 - how and when to access emergency response services
 - communication systems, equipment and methods available in remote situations
 - priorities of management in first aid when dealing with life-threatening conditions
 - specific considerations contextualised to alpine, desert, marine, rural/remote settings and tropical environments
- basic anatomy and physiology relating to:
 - how to recognise a person is not breathing normally
 - chest
 - response/consciousness
 - upper airway and effect of positional change
 - considerations in provision of first aid for specified conditions, including specific considerations for remote settings

Assessment Conditions

Skills must be demonstrated working individually in an environment that provides realistic in-depth, industry-validated scenarios and simulations to assess candidates' skills and knowledge.

- Assessment resources must include:
 - adult and infant resuscitation manikins in line with ARC Guidelines for the purpose of assessment of CPR procedures
 - adrenaline auto-injector training device
 - AED training device
 - placebo bronchodilator and spacer device
 - roller bandages
 - thermometer
 - triangular bandages
 - workplace First Aid kit suitable for remote locations

- workplace injury, trauma and/or illness record, or other appropriate workplace incident report form
- wound dressings

Simulated assessment environments must simulate the real-life working environment where these skills and knowledge would be performed, with all the relevant equipment and resources of that working environment.

Assessor requirements

Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

HLTWHS001 Participate in workplace health and safety

Modification History

Release	Comments
Release 3	<p>Updated:</p> <ul style="list-style-type: none"> • assessor requirements statement • foundation skills lead in statement • licensing statement • modification history to reflect 2012 standards <p>Equivalent outcome.</p>
Release 2	<p>Minor corrections to formatting to improve readability. Equivalent competency outcome.</p>
Release 1	<p>This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Updated to incorporate content of unit HLTWHS200A. Revised scope of unit to reflect requirements of workers. New evidence requirements for assessment.</p>

Application

This unit describes the skills and knowledge required for workers to participate in safe work practices to ensure their own health and safety, and that of others.

The unit applies to all workers who require knowledge of workplace health and safety (WHS) to carry out their own work, either under direct supervision or with some individual responsibility.

The skills in this unit must be applied in accordance with Commonwealth and State/Territory legislation, Australian/New Zealand standards and industry codes of practice.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

Elements define the essential outcomes.

Performance criteria specify the level of performance needed to demonstrate achievement of the element.

1. Follow safe work practices

1.1 Follow workplace policies and procedures for safe work practices

1.2 Identify existing and potential hazards in the workplace, report them to designated persons, and record them according to workplace procedures

1.3 Follow workplace emergency procedures

2. Implement safe work practices

2.1 Identify and implement WHS procedures and work instructions

2.2 Identify and report incidents and injuries to designated persons according to workplace procedures

2.3 Take actions to maintain safe housekeeping practices in own work area

3. Contribute to safe work practices in the workplace

3.1 Raise WHS issues with designated persons according to organisational procedures

3.2 Participate in workplace safety meetings, inspections and consultative activities

3.3 Contribute to the development and implementation of safe workplace policies and procedures in own work area

4. Reflect on own safe work practices

4.1 Identify ways to maintain currency of safe work practices in regards to workplace systems, equipment and processes in own work area

4.2 Reflect on own levels of stress and fatigue, and report to designated persons according to workplace procedures

Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

- *Reading* – in order to accurately read and interpret workplace safety policies and

procedures including safety signs, dangerous goods classifications and safety instructions

The remaining foundation skills essential to performance are explicit in the performance criteria of this unit

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

Assessment Requirements for HLTWHS001 Participate in workplace health and safety

Modification History

Release	Comments
Release 3	Updated: <ul style="list-style-type: none">• assessor requirements statement• foundation skills lead in statement• licensing statement• modification history to reflect 2012 standards Equivalent outcome.
Release 2	Minor corrections to formatting to improve readability. Equivalent competency outcome.
Release 1	This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages. Updated to incorporate content of unit HLTWHS200A. Revised scope of unit to reflect requirements of workers. New evidence requirements for assessment.

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role.

There must be demonstrated evidence that the candidate has completed the following tasks at least once in line with state/territory WHS regulations, relevant codes of practice and workplace procedures:

- contributed to a WHS meeting or inspection in workplace
- conducted a workplace risk assessment and recorded the results
- consistently applied workplace safety procedures in the day-to-day work activities required by the job role
- followed workplace procedures for reporting hazards
- followed workplace procedures for a simulated emergency situation.

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the work role. This includes knowledge of:

- state/territory legislation and how it impacts on workplace regulations, codes of practice and industry standards, including:
 - state/territory WHS authorities
 - rights and responsibilities of employers and workers, including duty of care
 - hazardous manual tasks
 - infection control
- safety signs and their meanings, including signs for:
 - dangerous goods classifications
 - emergency equipment
 - personal protective equipment (PPE)
 - specific hazards such as sharps, radiation
- hazard identification, including:
 - definition of a hazard
 - common workplace hazards relevant to the industry setting
 - workplace procedures for hazard identification
- workplace emergency procedures
- workplace policies and procedures for WHS

Assessment Conditions

Skills must be demonstrated:

- in the workplace

OR

- in an environment that provides realistic in-depth industry validated scenarios and simulations to assess candidates' skills and knowledge.

Assessment must ensure use of:

- current workplace policies and procedures for WHS
- PPE relevant to the workplace and job role of the worker

In addition, assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

LGACOM404B Establish cooperative arrangements with other organisations

Modification History

LGACOM404B Release 1: Primary release.

Unit Descriptor

The unit covers identifying, developing, implementing and monitoring cooperative arrangements with other organisations in an effort to improve services provided to the community. The unit is appropriate for staff working in areas of council where community and business development are a major focus.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation and regulations within which councils must operate is essential. The unique nature of councils, as a tier of government directed by elected members and reflecting the needs of local communities, must be appropriately reflected.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be

consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<p>1. Identify opportunities for cooperative arrangements</p>	<p>1.1. Opportunities for <i>cooperative arrangements</i> are identified through consultation with <i>other organisations</i>.</p> <p>1.2. Opportunities identified are analysed to ensure they will provide an increased level, or at least an equivalent level, of service to the community.</p>
<p>2. Develop and implement cooperative policies and projects with other organisations</p>	<p>2.1. Cooperative policies are agreed upon by all participating organisations and disseminated to all involved staff.</p> <p>2.2. Project objectives and <i>performance indicators</i> are determined and plans are drawn up to facilitate the smooth implementation and conduct of collaborative projects.</p> <p>2.3. Implementation methods are organised and agreed actions and work programs are allocated to relevant staff.</p> <p>2.4. Communications strategies are put in place to enable efficient and coherent implementation and conduct.</p> <p>2.5. Resources are identified and accessed in the most cost-effective manner.</p> <p>2.6. Communities are informed of the changes and benefits in service delivery due to the new collaborative arrangements.</p>
<p>3. Monitor and evaluate the effectiveness of the collaborative venture</p>	<p>3.1. Project progress is evaluated with reference to planned time lines and performance criteria at predetermined intervals to assess effectiveness for council and community.</p> <p>3.2. Project is reviewed and project plan and resource allocations are revised when necessary.</p> <p>3.3. Information gathered from project evaluation is used to provide input to continuous improvement and planning processes.</p> <p>3.4. Problems or contingencies that arise are managed and resolved professionally and promptly in conjunction with relevant personnel.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- negotiation with a range of personnel and other agencies
- research and evaluation, including cost-benefit analysis
- written and verbal communication with public and council personnel affected by implementation
- strategic and business planning
- planning and organisational
- time management
- ability to work as part of a team particularly with people from diverse backgrounds
- problem solving
- using appropriate software and technology

Required Knowledge

- relevant council policies and procedures
- sustainable practices
- council operations
- council goals, objectives and strategies
- other organisations potentially interested in cooperative arrangements

Evidence Guide

Overview of assessment requirements

A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit are also required to be demonstrated.

Critical aspects of evidence to be considered

The demonstrated ability to:

- establish cooperative arrangements with other organisations on behalf of council that create measurable benefits to the organisation, incorporate effective evaluation mechanisms and support corporate direction and strategies
- communicate cooperative arrangements and their benefit effectively throughout the organisation.

Context of assessment	Assessment of performance requirements in this unit should be undertaken within the context of the local government framework. Competency is demonstrated by performance of all stated criteria, including the Range of Variables applicable to the workplace environment.
Method of assessment	The following assessment methods are suggested: <ul style="list-style-type: none"> • observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies • written and/or oral questioning to assess knowledge and understanding • completion of workplace documentation • third-party reports from experienced practitioners • completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor.
Evidence required for demonstration of consistent performance	Evidence will need to be gathered over time across a range of variables depending on council work flow and planning cycle as long as the critical aspects of evidence can be demonstrated.
Resource implications	Access to organisations with whom cooperative arrangements are to be developed or to simulated case studies.

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

<i>Cooperative arrangements</i> may include:	<ul style="list-style-type: none"> • joint funding for projects • shared promotional resources • joint ventures to build or construct community facilities • sponsorship arrangements
<i>Other organisations</i> may include:	<ul style="list-style-type: none"> • other councils within the region, state or nation • regional organisations of councils • state or commonwealth agencies • private or business enterprises • community groups
<i>Performance indicators</i> may include:	<ul style="list-style-type: none"> • increases in revenue • customer satisfaction reports • increases in service usage

- increased tourism to the region or municipality

Unit Sector(s)

Common.

Competency field

Not applicable.

LGACOM502B Devise and conduct community consultations

Modification History

LGACOM502B Release 2: Layout adjusted. Range statement edited.

LGACOM502B Release 1: Primary release.

Unit Descriptor

This unit covers devising and conducting community consultations and reporting on results. The vital and unique responsibility councils have to engage and consult with communities in order to respond to the needs of the community in a timely and effective manner is recognised.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation and regulations within which councils must operate is essential. The unique nature of councils, as a tier of government directed by elected members and reflecting the needs of local communities, must be appropriately reflected.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be

consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Devise consultation strategies	<p>1.1. A range of consultation strategies is identified and assessed for suitability.</p> <p>1.2. <i>Interested and affected parties</i> are identified.</p> <p>1.3. <i>Resources</i> required to conduct consultation are assessed.</p> <p>1.4. <i>Consultation strategies</i> are chosen that <i>enable and encourage relevant groups</i> or individuals to be involved.</p> <p>1.5. <i>Legislative</i> and council requirements are reviewed to ensure strategies meet all criteria.</p>
2. Conduct consultations	<p>2.1. <i>Information</i> is prepared that is clear, accurate and appropriate to the needs of all parties.</p> <p>2.2. All people involved in conducting the consultations are briefed on the process of consultation and the parties involved.</p> <p>2.3. <i>Information is presented</i> to affected parties at an appropriate time and place.</p> <p>2.4. <i>Access and equity</i> requirements are implemented in the consultations.</p> <p>2.5. Measures to expedite community consultation are taken to ensure consultation occurs within an identified time frame.</p> <p>2.6. Consultation is undertaken in an orderly manner to ensure all viewpoints are canvassed.</p>
3. Record, analyse and report on results	<p>3.1. Public consultation responses and processes are formatted to enable informed decision making to proceed.</p> <p>3.2. Appropriate suggestions for improvement are incorporated into design parameters.</p> <p>3.3. Summaries of responses and adopted amendments are provided to interested parties to ensure public consultation is recognised.</p> <p>3.4. Other issues raised during consultation are directed to relevant department or person to respond to community concern.</p> <p>3.5. An accurate report on community consultation that includes recommendations is prepared to enable informed decision making to occur.</p>

ELEMENT**PERFORMANCE CRITERIA**

- 3.6. The overall effectiveness of the consultation process is reviewed and evaluated and action is taken where necessary.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- consultation, presentation, negotiation and report writing
- research
- planning and organising
- information gathering and analysis

Required Knowledge

- relevant council policies and procedures
- relevant legislation, including planning and anti-discrimination
- relevant sections of local government act
- access and equity issues
- strategies for consultation
- codes of conduct and ethics

Evidence Guide**Overview of assessment requirements**

A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit are also required to be demonstrated.

Critical aspects of evidence to be considered

The demonstrated ability to devise and conduct community consultations where:

- consultation ensures council's image or reputation is maintained or enhanced
- community consultation produces valid and useful information

Context of assessment	Assessment of performance requirements in this unit should be undertaken within the context of the local government framework. Competency is demonstrated by performance of all stated criteria, including the Range of Variables applicable to the workplace environment.
Method of assessment	The following assessment methods are suggested: <ul style="list-style-type: none"> • observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies • written and/or oral questioning to assess knowledge and understanding • completion of workplace documentation • third-party reports from experienced practitioners • completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor
Evidence required for demonstration of consistent performance	Evidence should be gathered over a period of time in a range of actual or simulated management environments.
Resource implications	Access to a range of real or simulated consultation processes including: <ul style="list-style-type: none"> • public and community meetings and forums • surveys and door knocks • appropriate communications equipment and aids such as overhead projectors and computer-based presentations

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

<i>Interested and affected parties</i> may include:	<ul style="list-style-type: none"> • community groups • other authorities • individuals • emergency authorities (police, fire and ambulance) • private sector business interests • special interest groups • experts
<i>Resources</i> may include:	<ul style="list-style-type: none"> • human

- financial
 - locations
- Consultation strategies*** may include:
- public meetings
 - phone-ins
 - questionnaires
 - informal gatherings
 - door knocks
 - council meetings
- Enabling and encouraging relevant groups*** to be involved may include:
- physical accessibility
 - diverse language needs
 - culture, including Indigenous, youth and non-English speaking background
 - physical environment
 - number of people
- Legislation*** may include:
- local government
 - anti-discrimination
 - planning
- Information*** may include:
- written and oral records
 - anecdotes
 - reports
 - instructions
 - directions from supervisor or management
 - interviews
 - formal and informal team meetings
 -
- Access and equity*** may include:
- subject matter
 - manner in which consultations are conducted
 - physical accessibility
 - community profile
 -
 -
- Presentation of information*** may include:
- graphics
 - models
 - computer animations
 - video displays
 - overhead transparencies
 - handouts
 - display plans
 - interpreter service

Unit Sector(s)

Common

Competency field

Competency Field

co-requisite unit/s

Co-requisite Unit/s

LGACOMP008A Apply conflict resolution strategies

Modification History

LGACOMP008A Release 2: Layout adjusted.

LGACOMP008A Release 1: Primary release.

Unit Descriptor

This unit covers dealing effectively with conflict, both in the workplace and outside the organisation. The unit outlines the knowledge and skills required to assess potential conflict situations and deal appropriately with the situation to achieve a resolution. The unit is suitable for all people working within the organisation.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation and regulations within which councils must operate is essential. The unique nature of councils, as a tier of government directed by elected members and reflecting the needs of local communities, must be appropriately reflected.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be

consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess potential conflict situations	1.1 Signs, stages and possible <i>causes of conflict</i> are identified and anticipated. 1.2 Appropriate responses are evaluated against organisational procedures and <i>legal requirements</i> . 1.3 Additional information is identified and sought as required to assist in the assessment of the conflict situation.
2. Implement conflict resolution strategies	2.1 Factors and issues relevant to the conflict are clarified. 2.2 Strategies for dealing with conflict situations are developed in accordance with organisational procedures. 2.3 Assistance is sought as required and is appropriate to the person's skill and responsibility. 2.4 Options for resolution of the conflict are identified which allow for constructive responses to be negotiated. 2.5 <i>Negotiation techniques</i> are used to maintain positive interaction and to divert and minimise aggressive behaviour. 2.6 Effective <i>communication techniques</i> are used to ensure understanding of information received or relayed. 2.7 <i>Social and cultural differences</i> are taken into account in the negotiation style and approach taken. 2.8 Mutual agreement to the situation and its resolution is confirmed and follow up action is agreed upon by all parties. 2.9 Systems, records and reporting procedures are maintained according to organisational procedures.
3. Evaluate response and outcome	3.1 Effectiveness of response is evaluated and reviewed according to information available and organisational practices. 3.2 Accurate and constructive observations of incidents are provided in reviewing and debriefing the situation. 3.3 Records and reports are provided and maintained according to organisational requirements. 3.4 Effects of stress are recognised and addressed through stress management techniques and debriefing.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- problem-solving strategies to know how to deal with unexpected questions or attitudes
- interpersonal skills to develop rapport with other parties in the conflict
- capacity to evaluate own response to situations of conflict and manage own emotions
- communication skills to effectively come to an agreed outcome
- negotiation skills to negotiate difficult situations and resolve problems as they arise
- flexibility to adjust quickly to differing situations
- empathy to develop rapport and understanding with and for the other party
- dealing with difficult people and situations

Required Knowledge

- legislative and/or other legal provisions
- conflict resolution strategies
- organisational policies and procedures relating to managing conflict through negotiation
- recording and reporting procedures
- principles of cooperative team work
- different social and cultural practices

Evidence Guide

Overview of assessment requirements

A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit are also required to be demonstrated.

Critical aspects of evidence to be considered

The demonstrated ability to:

- interpret accurately and comply with legal and procedural requirements
- identify typical symptoms and causes of conflict in the workplace and ways of resolving conflict situations
- select conflict resolution strategies that are most effective for the objective
- use negotiation techniques to defuse and resolve conflict
- use communication techniques to give clear and accurate

	information in a form that is preferred and understood by the receiver
Context of assessment	<p>Competency is demonstrated by performance of all stated criteria, with particular attention to the critical aspects of evidence and the knowledge and skills elaborated in the Evidence Guide, and within the scope of the Range Statement.</p> <p>Assessment must take account of the endorsed Assessment Guidelines in the Local Government Training Package.</p> <p>Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment.</p> <p>Assessment should reinforce the integration of the key competencies for the particular AQF level. Refer to the key competency levels at the end of this unit.</p>
Relationship to other units(prerequisite or co-requisite units)	To enable holistic assessment this unit may be assessed with other units that form part of the job role.
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> • observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies • written and/or oral questioning to assess knowledge and understanding • completion of workplace documentation • third-party reports from experienced practitioners • completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor
Evidence required for demonstration of consistent performance	Evidence should be collected over a set period of time that is sufficient to include dealings with an appropriate range and variety of formal and informal situations, involving different types of problems and clients.
Resource implications	The learner and trainer should have access to appropriate documentation and resources normally used in the workplace.

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

- Causes of conflict*** may include:
- refusal to follow directions and guidance
 - dissatisfaction of client with council service or information
 - disagreement between members of the public
 - disagreement between members of the organisation
 - ejection of persons
 - persons suffering from emotional distress
 - bystander behaviour
- Legal requirements*** may include:
- relevant state and commonwealth legislation
 - decisions of relevant tribunals
 - roles and responsibilities
 - terms and conditions of employment
- Negotiation techniques*** may include:
- strategic questioning and listening to gather information and direct the focus of the people involved
 - positive, confident and cooperative language
 - control of tone of voice and body language
 - using language and concepts appropriate to the people involved
 - using clear presentations of options and consequences
 - demonstrating flexibility and willingness to compromise
 - summarising positions and agreements made to confirm understanding between the negotiating parties
- Communication techniques*** may include:
- verbal and non-verbal language
 - two-way interaction
 - constructive feedback
 - active listening
 - reflection and summarising
- Social and cultural differences*** may include:
- verbal and non-verbal language
 - beliefs and values
 - religious or spiritual observances
 - relationships and family structures
 - social conventions
 - codes of conduct

Unit Sector(s)

Common

LGAGCM710A Manage contracts and contractors

Modification History

LGAGCM710A Release 2: Layout adjusted.

LGAGCM710A Release 1: Primary release.

Unit Descriptor

This unit covers the skills and knowledge required of senior managers responsible for overseeing the development of tenders and the subsequent management of contracts and contractors.

Effective and efficient management of external contracts is now a major component of many managers' roles. The need for high levels of accountability and transparency while managing commercial relationships is addressed in this unit.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation and regulations that provide the boundaries for the operation of councils is essential. The unique nature of councils, as a tier of government, directed by elected members and reflecting the needs of local communities must be appropriately reflected.

This unit may also be contextualised to other public or private sectors as long as the essential outcomes of the unit are not changed.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Scope council process and service requirements

- 1.1 ***Council procedures and protocols for management of tenders and contracts*** are identified, considered and used.
- 1.2 Council's strategic and operational plans are reviewed and considered to determine scope and nature of project or service to be contracted.
- 1.3 Size and scope of ***project or service to be contracted*** are determined and documented.
- 1.4 Process to manage tender and contract is documented and appropriate sign-off is secured in line with standard operating procedures.

2. Ensure tender process is planned and managed effectively

- 2.1 Anticipated expense levels of tender are identified and justified.
- 2.2 Tender objectives, including quality, quantity, location, time frame requirements and price limits are clearly defined and documented.
- 2.3 Processes for letting of tender are put in place in line with standard operating procedures.
- 2.4 ***Selection processes*** are developed that comply with legislative requirements, council policies and procedures.
- 2.5 Choice of contractor is justifiable, agreed upon and recorded according to council policies.
- 2.6 Contract is negotiated and agreement reached to maximise benefits for council and following appropriate legal scrutiny and advice.
- 2.7 Contract is drafted and signed according to legislative and organisational requirements and project objectives, reflecting agreement outcomes.

3. Manage contract to achieve desired outcomes

- 3.1 Management plan is developed to ensure effective management of contract.
- 3.2 Performance of contractual obligations is managed in accordance with agreed contract and management plan.

ELEMENT	PERFORMANCE CRITERIA
4. Manage relationships with contractors	<p>3.3 Performance by contractor is reviewed using agreed processes, with any variances analysed and agreed changes implemented to ensure project objectives are met within legal framework of contract.</p> <p>3.4 <i>Reports of project progress</i> and outcomes are prepared and presented in accordance with management plan and standard organisational procedures.</p> <p>3.5 Contracts are concluded in line with management plan and contractual requirements.</p> <p>4.1 Code of conduct is used and communicated to contractors to ensure relationship between parties is managed ethically, transparently and in accordance with legal requirements and council policies and procedures.</p> <p>4.2 Regular and formalised communication processes with contractors are established and rigorously applied.</p> <p>4.3 Sound business relationships with contractors are established and maintained to ensure effective communication and the early identification of potential service delivery problems.</p> <p>4.4 Contractual disputes that arise are managed in accordance with contractual requirements and using established mediation mechanisms.</p>
5. Plan for improved contract management and service delivery processes	<p>5.1 Effectiveness and benefits of contracting process and related service delivery are analysed.</p> <p>5.2 Opportunities for process and service delivery improvements are identified and communicated to appropriate senior personnel within council.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- tender management
- high-level negotiation
- literacy and numeracy skills to manage contracts
- project management
- high-level written and oral communication
- analysis of organisational systems, processes and activities
- developing a range of possible options in solving problems

- time management

Required Knowledge

- legal and council requirements for letting and managing tenders
- council code of conduct for the management of relationships with contractors

Evidence Guide

Overview of assessment requirements

A person who demonstrates competency in this unit will be able to perform the outcomes described in the elements to the required performance level detailed in the performance criteria. The unit's skill and knowledge requirements must also be demonstrated. The candidate will demonstrate the capacity to manage contracts and contractors effectively, ethically and leading to the attainment of stated council objectives.

Critical aspects of evidence to be considered

The demonstrated ability to:

- manage contracts and contractors within council

Context of assessment

Assessment of performance requirements in this unit should be undertaken with the context of the local government framework. Competency is demonstrated by performance of all stated criteria, including the range of variables applicable to the workplace environment.

Method of assessment

The following assessment methods are suggested:

- preparation of a major workplace project report/portfolio (that may incorporate assessment of related units) as a key form of assessment that enables candidates to integrate the learning and assessment project into their regular work responsibilities, which enables integrated and holistic assessment of the complex skills and knowledge addressed in this unit
- observation of the learner performing a range of workplace tasks over sufficient time to demonstrate his/her handling of a range of contingencies
- written and oral questioning to assess knowledge and understanding
- completion of workplace documentation
- third-party reports from experienced practitioner
- completion of self-paced learning materials, including personal reflection and feedback from trainer, coach or supervisor

Evidence required for demonstration of consistent performance

Evidence should be gathered over a period of time in a range of actual or simulated management environments.

Resource implications

Access to a workplace or simulated case study that provides the following resources:

- relevant council documents, such as strategic and operational plans
- relevant local government legislation and regulations

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

Council procedures and protocols for the management of tenders and contracts may include:

- codes of conduct for transparent and accountable management of contracts and contractors
- tendering procedures
- reporting requirements

Contracts may cover provision of:

- short-term, one-off services
- lengthy and complex relationships with external service providers offering services to the community

Project or service to be contracted may relate to any sphere of council operation but typically may include:

- capital works
- parks and gardens maintenance
- provision of community care services, such as family care, disability services or child care
- provision of waste and recycling service

Tender selection processes may include:

- advertising period
- use of selective tenders, tender panels and 'open' tenders for contracts of differing values
- establishment of weighted selection criteria
- establishment of a selection panel with complementary expertise

Reports of project progress may include:

- compliance with required timelines
- indicators of service levels and quality
- actual cost against budgeted cost
- customer satisfaction

Unit Sector(s)

Common

LGALAND504A Undertake effective consultation with Indigenous people on matters of cultural heritage

Modification History

LGALAND504A Release 2: Layout adjusted.

LGAGLAND504A Release 1: Primary release.

Unit Descriptor

This unit covers undertaking effective consultation with Aboriginal or Torres Strait Islander people on matters relating to their cultural heritage.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation and regulations within which councils must operate is essential. The unique nature of councils, as a tier of government directed by elected members and reflecting the needs of local communities, must be appropriately reflected.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Conduct background research	<p>1.1 Previous Indigenous cultural heritage and resource surveys are identified and reviewed.</p> <p>1.2 Relevant commonwealth and state or territory legislation and peak local government associations and council policies are researched and documented.</p> <p>1.3 Extent to which cultural heritage of other non-Indigenous cultures should be acknowledged is identified and taken into consideration.</p>
2 Identify the correct Indigenous people that are authorised to speak for a place	<p>2.1 <i>Indigenous people with rights and interests in a place</i> are identified through the traditional owners, especially those authorised to speak for a place.</p> <p>2.2 Both men and women with rights and interests in an area or place are identified because men and women may be responsible for different heritage places and values and may need to be consulted separately.</p> <p>2.3 Other Indigenous people are identified who may not necessarily be traditional owners but who have interests in a place.</p> <p>2.4 Indigenous people from surrounding areas who may be affected by a project or activity are identified and consulted.</p> <p>2.5 <i>Protocols</i> that Indigenous people have established for consultation are identified and adhered to throughout the process.</p> <p>2.6 Consultation on each new project is undertaken, unless traditional owners and other Indigenous people agree that this is not necessary.</p> <p>2.7 Non-Indigenous people with rights or interests in the place are identified and consulted.</p>
3 Consult with relevant Indigenous people to discuss the project or activity	<p>3.1 <i>Potential implications of the project or activity</i> are outlined factually and clearly.</p> <p>3.2 All <i>relevant documentation and information</i> are provided to the traditional owners and all other Indigenous people with rights and interests in a place.</p> <p>3.3 Sufficient time is allowed for all Indigenous people to decide whether they wish to become involved in the activity or project and to provide informed consent.</p> <p>3.4 All Indigenous groups with an interest in a place are provided with the same information and given sufficient time to provide informed consent.</p> <p>3.5 Where groups are in dispute, a process for developing</p>

ELEMENT	PERFORMANCE CRITERIA
	separate but consistent and similar agreements is established.
4 Establish a process for addressing Indigenous cultural heritage matters	<p>4.1 Manner, timing and level of consultation and involvement with the project or activity are agreed.</p> <p>4.2 The copyright holders of any work undertaken with Indigenous people and the management regime for Indigenous heritage places are identified.</p> <p>4.3 Need for separate reports for male and female traditional owners and a further report that is publicly available is established.</p> <p>4.4 Dissemination of reports is carried out effectively.</p> <p>4.5 The process for obtaining informed consent for displaying any gathered information is identified and agreed.</p> <p>4.6 Protocols and agreements are formalised and documented.</p> <p>4.7 Indigenous people are involved in the development of any terms of reference for, and selection of, consultants.</p> <p>4.8 Resources required to maintain community involvement are identified and secured.</p> <p>4.9 Relevant documentation for council is prepared, including presentation of alternative options.</p>
5 Consult with relevant Indigenous people in identifying their cultural heritage places and values	<p>5.1 Commonwealth and state or territory laws relating to Aboriginal and Torres Strait heritage are complied with by obtaining necessary permits for surveys and other activities required to identify Indigenous heritage values.</p> <p>5.2 Sensitive information collected in the course of identifying Indigenous heritage places and values is protected from further unnecessary disclosure.</p> <p>5.3 Details relating to custodians of information are recorded and protected from further unnecessary disclosure.</p>
6 Implement project or activity	<p>6.1 Meetings are held with identified stakeholders that enable Indigenous people to explain issues relating to Indigenous heritage to non-Indigenous stakeholders.</p> <p>6.2 Processes for mediation and dispute resolution are identified and established.</p> <p>6.3 A precautionary approach is identified in cases where Indigenous people refuse to be involved in a project.</p> <p>6.4 A process to prevent damage or desecration to any Indigenous heritage place is identified and established.</p> <p>6.5 Proposal or activity is revised or rejected in light of Indigenous people not agreeing because of unacceptable impact on their cultural heritage.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- oral and written communication
- cross-cultural competence
- gender and disability
- evaluation
- decision making
- research
- networking
- negotiation and dispute resolution

Required Knowledge

- cultural context
- community controls
- location and resources
- organisational processes
- equity and diversity principles
- legal requirements

Evidence Guide

Overview of assessment requirements

A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit are also required to be demonstrated.

Critical aspects of evidence to be considered

The demonstrated ability to:

- conduct research into cultural heritage and protect any sensitive information collected in the course of the research process
- identify Indigenous people with rights and interests in a place
- meet with Indigenous people to discuss a project or activity

and reach agreement about involvement and consent to their involvement in the project or activity

- establish a process for addressing Indigenous cultural heritage matters in relation to a project or activity.

Context of assessment

Competency is demonstrated by performance of all stated criteria, with particular attention to the critical aspects of evidence and the knowledge and skills elaborated in the Evidence Guide, and within the scope of the Range Statement.

Assessment must take account of the endorsed Assessment Guidelines in the Local Government Training Package.

Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment.

Assessment should reinforce the integration of the key competencies for the particular AQF level. Refer to the key competency levels at the end of this unit.

Relationship to other units (prerequisite or co-requisite units)

To enable holistic assessment this unit may be assessed with other units that form part of the job role.

Method of assessment

The following assessment methods are suggested:

- observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies
- written and/or oral questioning to assess knowledge and understanding
- completion of workplace documentation
- third-party reports from experienced practitioners
- completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor.

Evidence required for demonstration of consistent performance

Evidence should be collected over a set period of time that is sufficient to include dealings with an appropriate range and variety of situations.

Resource implications

The learner and trainer should have access to appropriate documentation and resources normally used in the workplace.

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in

the Performance Criteria is detailed below.

- Indigenous people with rights and interests in a place*** may include:
- traditional owners
 - men
 - women
 - Indigenous people authorised to speak for a place
- Protocols*** may include:
- use of interpreters
 - talking to the appropriate people
 - laws and customs relating to places
 - respecting family, kinship and clan relationships
- Non-Indigenous people with rights or interests in a place*** may include:
- landholders
 - lessees
 - tourists and recreational users
 - state or territory government agencies
 - commonwealth departments and agencies
- Potential implications of the project or activity*** may include:
- economic or financial
 - cultural
 - social
 - environmental
 - educational
 - others
- Relevant documentation and information*** may include:
- maps
 - reports

Unit Sector(s)

Land Management

LGAPLEM508A Manipulate and analyse data within geographic information systems

Modification History

LGAPLEM508A Release 2: Layout adjusted.

LGAPLEM508A Release 1: Primary release.

Unit Descriptor

This unit relates to extracting, comparing and manipulating data in response to customer requests.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation and regulations within which councils must operate is essential. The unique nature of councils, as a tier of government directed by elected members and reflecting the needs of local communities, must be appropriately reflected.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Develop procedures for manipulation and analysis of data	1.1 Desired data format is specified and based on job requirements. 1.2 Parameters are specified for manipulation of the data sets. 1.3 New procedures are documented clearly explaining the procedure and rationale for development.
2 Establish models required to provide outcome	2.1 Applicability of existing tools, models, theories, applications and solutions is evaluated. 2.2 Feasible parameters, equations and assumptions are specified. 2.3 Models required to provide specified outcome are established.
3 Analyse data	3.1 Steps to be undertaken to analyse and manipulate data are specified. 3.2 <i>Source data limitations</i> and other restricting <i>factors</i> are taken into account when selecting techniques for analysis. 3.3 Data is isolated and retrieved from its source. 3.4 Data is interrogated to ensure reliability. 3.5 Data is prepared for presentation media.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- analysing options
- using tools within software to manipulate data
- reading external data sets into data model

Required Knowledge

- database structures
- scripting and commands
- line instructions and programming
- operating systems:
- range of tools, models, theories, applications and solutions
- data analysis and manipulation techniques.

- UNIX
- DOS
- Windows
- NT

Evidence Guide

Overview of assessment requirements	A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit are also required to be demonstrated.
Critical aspects of evidence to be considered	Suitable procedures are developed. New procedures are documented. Appropriate models are used and/or created.
Context of assessment	On the job or in a simulated work environment.
Method of assessment	The following assessment methods are suggested: <ul style="list-style-type: none">• observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies• written and/or oral questioning to assess knowledge and understanding• completion of workplace documentation• third-party reports from experienced practitioners• completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor
Evidence required for demonstration of consistent performance	Evidence will need to be gathered over time across a range of variables.
Resource implications	Access to geographic information systems databases and operating systems.

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

Source data limitations may include:

- currency
- structure
- accuracy
- source of data

Factors may include:

- time
- command line operation
- menu drivers options

Unit Sector(s)

Planning

LGAPLEM512A Provide geographic information systems data

Modification History

LGAPLEM512A Release 2: Layout adjusted.

LGAPLEM512A Release 1: Primary release.

Unit Descriptor

This unit covers developing and applying data management and analytical tools to produce specified outcomes.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation and regulations within which councils must operate is essential. The unique nature of councils, as a tier of government directed by elected members and reflecting the needs of local communities, must be appropriately reflected.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Analyse request to develop solution	<p>1.1 Specific problem or question is clarified in consultation with <i>end user</i> to establish <i>end result specifications</i> .</p> <p>1.2 Information required to achieve result is defined and required <i>data</i> sets are correctly determined.</p>
2 Assess data availability	<p>2.1 Availability of required data sets is ascertained through research of <i>internal</i> and <i>external sources</i> .</p> <p>2.2 Custodianship of data is confirmed and access and pricing are determined.</p> <p>2.3 Data is obtained in line with <i>industry standards</i>, statutory requirements and council policy.</p> <p>2.4 Where appropriate, <i>procedures</i> are developed to capture data.</p>
3 Assess data quality	<p>3.1 Data is assessed for <i>integrity</i> to determine suitability for task.</p> <p>3.2 Disparities between data sets are investigated and resolved to ensure integrity of data used.</p>
4 Run standard query	<p>4.1 Appropriate standard query is selected.</p> <p>4.2 Selected query is run to achieve required outcome .</p>
5 Validate outcome	<p>5.1 Appropriate data validation procedures are determined.</p> <p>5.2 <i>Outcome</i> is validated in line with predetermined procedures.</p> <p>5.3 Procedures to refine model or analytical procedures are developed.</p> <p>5.4 End user is consulted regarding suitability of outcome and amendments are negotiated as necessary.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- analysing options
- researching and accessing information
- attention to detail
- negotiating with customers

Required Knowledge

- database structures
- scripting and commands
- line instructions and programming
- operating systems
- SQL or other generic query language
- relationship of spatial features of database
- specific geographic information systems software, such as Genamap, MapInfo or ArcInfo
- potential inaccuracies and problems
- internal and external policies and practices relating to custodianship of data, pricing and access including industry standards, statutory requirements and council policies
- legislation relating to trade practices, copyright, intellectual property, local government acts, roads act and freedom of information legislation.
- UNIX
- DOS
- Windows
- NT

Evidence Guide

Overview of assessment requirements	A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit are also required to be demonstrated.
Critical aspects of evidence to be considered	The demonstrated ability to: consider integrity of data ensure end result meets customer needs, including time frames.
Context of assessment	Assessment of performance requirements in this unit should be undertaken within the context of the local government framework. Competency is demonstrated by performance of all stated criteria applicable to the workplace environment, within the scope of the Range Statement.
Method of assessment	The following assessment methods are suggested: <ul style="list-style-type: none"> • observation of the learner performing a range of workplace

tasks over sufficient time to demonstrate handling of a range of contingencies

- written and/or oral questioning to assess knowledge and understanding
- completion of workplace documentation
- third-party reports from experienced practitioners
- completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor

Evidence required for demonstration of consistent performance

Evidence should be gathered over a period of time in a range of actual or simulated management environments.

Resource implications

Access to a workplace or simulated case study that provides the following resources:

- relevant hardware and software such as geographic information systems, CAD, desktop publishing, desktop mapping, spreadsheets, word processing, multimedia, graphic animation, plotters, printers and terminals

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

End users may be:

- council departments
- residents and rate payers
- real estate agents
- general public
- council management
- elected members
- state and federal departments
- neighbouring councils
- bus companies
- statutory bodies including land titles office
- land information council
- utilities

End result specification may include:

- graph
- map
- table
- equations

- Data** may include:
- parameters
 - graphical
 - spatial
 - textual
 - hard copy and paper documents, including work registers, rate books, plans and maps
 - computer records using applications programs (databases, spreadsheets and accounting packages) relating to physical or virtual features, including council assets, community facilities, demographic data, census data, property ownership, property boundaries, zonings, organisations, rateable land, dog ownership, bus routes, property classifications, utilities and services and council facilities
- External sources of data sets** may include:
- other councils
 - water authority
 - telecommunications industry
 - gas authority
 - electricity authority
 - land titles office
 - valuer general
 - private industry
 - land information council
 - street directory companies
 - surveys
 - orthophotography
- Internal sources of data sets** may include:
- old plans
 - rates books
 - deeds books
 - transaction books
 - surveys
 - aerial photographs
- Industry standards** may include:
- protocols
 - de facto standards
 - confidentiality
 - privacy
- Procedures for manipulation of data sets** may include:
- command lines
 - SQL or other generic query language
 - scripts
 - programming language
- Integrity of data** may include:
- accuracy
 - quality, which may be affected by age or condition of hard copy documents

- Outcome* may include:
- currency
 - completeness
 - resolution
 - confidence limits
 - scale
 - information for external or internal client
 - creation of map layer
 - building up elements of database

Unit Sector(s)

Planning

LGAPLEM612B Protect heritage and cultural assets

Modification History

LGAPLEM612B Release 2: Layout adjusted.

LGAPLEM612B Release 1: Primary release.

Unit Descriptor

This unit covers establishing an inventory, assessing opportunities and threats and developing strategies for heritage and cultural assets.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation and regulations within which councils must operate is essential. The unique nature of councils, as a tier of government directed by elected members and reflecting the needs of local communities, must be appropriately reflected.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare inventory of heritage and cultural assets	<p>1.1 <i>Heritage</i> and cultural assets within the community, and council expectations and requirements relating to them, are identified.</p> <p>1.2 The <i>significance</i> of each heritage and cultural asset is assessed according to established criteria and community expectations.</p> <p>1.3 An adequate <i>information</i> base of significant places is obtained through comprehensive field investigation and research.</p> <p>1.4 <i>Data</i> is collected accurately and objectively on heritage and cultural assets.</p> <p>1.5 A comprehensive inventory of heritage and cultural assets is prepared with full and detailed descriptions of history and significance.</p>
2 Assess threats and opportunities for the protection of heritage and cultural assets	<p>2.1 <i>Threats</i> and opportunities are identified to ensure all factors are fully assessed.</p> <p>2.2 Based on input from council and the community, criteria are established to enable threats and opportunities to be prioritised.</p>
3 Identify and develop strategies for the protection of heritage and cultural assets	<p>3.1 <i>Criteria</i> are established to identify priorities.</p> <p>3.2 Consultation with the community and property owners is undertaken to seek views on the conservation action required to protect the significant attributes of the area.</p> <p>3.3 A framework for the legal protection of heritage and cultural assets is established through existing legislation.</p> <p>3.4 Practical and appropriate strategies to conserve heritage and cultural assets are determined.</p> <p>3.5 The effectiveness of strategies is assessed through a comparison with methods used elsewhere.</p> <p>3.6 The policy elements of the proposed heritage program are determined.</p> <p>3.7 Innovative approaches are developed to protect heritage and cultural assets in response to the local community need.</p>
4 Implement strategies for the protection of heritage and cultural assets	<p>4.1 The study and program are adopted by the local authority.</p> <p>4.2 Consultation is undertaken with the community and property owners about the study and proposed heritage program.</p> <p>4.3 Financial resources are identified and procured within budget cycles to support the achievement of required</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>outcomes.</p> <p>4.4 Personnel are identified, trained and assigned to tasks so that requirements for skills and knowledge are met.</p> <p>4.5 Physical facilities and equipment are identified and procured within budget cycles to support the achievement of required outcomes.</p> <p>4.6 Community education and <i>information</i> materials are prepared and distributed to ensure ongoing support for the strategy.</p> <p>4.7 The strategy is incorporated into council policies and procedures and relevant legislation.</p> <p>4.8 A timetable for implementation is established and priorities are set.</p>
<p>5 Monitor and review the effectiveness of strategies to protect heritage and cultural assets</p>	<p>5.1 Further research is undertaken on <i>places</i> listed as being of local significance in the study.</p> <p>5.2 Additional plans of significance are identified and reviewed.</p> <p>5.3 An annual heritage report is prepared if required.</p> <p>5.4 Information received from monitoring and review is used to develop new strategies that are based on accumulated knowledge and experience.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- research
- collation of information from local, national and international sources
- evaluation methodologies
- consultation with a range of community and government agencies
- strategic planning
- budgeting and lifecycle costings
- community education strategies
- project management

Required Knowledge

- heritage assets
- cultural assets
- asset classification

- council structures and services
- town planning
- community needs and expectations
- regulations, standards and policies
- community information

Evidence Guide

Overview of assessment requirements	A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit are also required to be demonstrated.
Critical aspects of evidence to be considered	The demonstrated ability to: <ul style="list-style-type: none">• identify and protect heritage and cultural assets• identify and implement strategies to protect heritage and cultural assets• put in place monitoring processes
Context of assessment	Assessment of performance requirements in this unit should be undertaken within the context of the local government framework. Competency is demonstrated by performance of all stated criteria, including the Range of Variables applicable to the workplace environment.
Method of assessment	The following assessment methods are suggested: <ul style="list-style-type: none">• observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies• written and/or oral questioning to assess knowledge and understanding• completion of workplace documentation• third-party reports from experienced practitioners• completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor
Evidence required for demonstration of consistent performance	Evidence should be gathered over a period of time in a range of actual or simulated management environments.

- Resource implications** Access to a workplace or simulated case study that provides the following resources:
- relevant data such as survey information
 - historical research
 - existing reports
 - studies and texts
 - financial and budget information
 - real or simulated consultation process
 - copies of relevant regulations, standards and policies

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

- Heritage*** may include:
- cultural and environmental issues
 - national and local area significance
 - danger component of heritage element or structure

- Significance*** may be:
- aesthetic, historical, scientific and social aspects
 - community expectations.
 - national
 - state
 - regional
 - local
 - contributory

- Data*** includes:
- survey information
 - historical research
 - existing reports
 - studies and texts

- Information*** may include:
- written and oral records
 - reports
 - instructions
 - directions from supervisor and management
 - formal and informal interviews
 - team meetings
 - reports from other services, agencies, specialists and experts
 - media

- Threats*** may include:
- political emphasis

Criteria may include:

- reductions in maintenance
- lack of planning
- other authorities' planning
- competing interests
- community attitudes
- community preferences
- budget constraints
- legislative provisions
- resources
- time frames
- age
- outstanding craftsmanship
- architectural style
- construction technology
- an association with important events or figures
- building type
- rarity
- technical or creative achievement
- representing a way of life
- artistic
- religious or cultural associations

Places of significance
may include:

- buildings
- structures
- plantings
- subsurface remains

Unit Sector(s)

Land Management

LGAREGS305A Undertake animal or reptile control duties

Modification History

LGAREGS305A Release 2: Layout adjusted.

LGAREGS305A Release 1: Primary release.

Unit Descriptor

This unit covers the capture, assessment of transport and care needs, impounding, monitoring, release and reporting of animals and/or reptiles.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of varying size and locations. Knowledge of the legislation and regulations within which councils must operate is essential. The role of councils, as the third tier of government, in managing the application of a broad range of by-laws and regulations must be appropriately reflected.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Capture animals or reptiles	1.1 Response to request for assistance is timely and efficient use of resources is observed. 1.2 Traffic control precautions are used and access to incident site is controlled to ensure safety of public. 1.3 Safe and humane methods of handling <i>animals or reptiles</i> are observed. 1.4 Where appropriate, animals or reptiles are disposed of in accordance with legislative and council requirements and relevant statutes.
2 Assess transport or care needs	2.1 <i>Transport</i> or intermediate care is provided according to protocols or legislation. 2.2 Containment and loading are secure and safe. 2.3 Temporary holding facilities are arranged or negotiated with landowners where necessary.
3 Impound animals or reptiles	3.1 Impounding decision is consistent with legislative and council requirements. 3.2 <i>Ownership</i> of animals is determined using council records or stock brands. 3.3 Advisory/penalty notices are issued according to council regulations.
4 Monitor or care for animals or reptiles	4.1 Feeding and handling of animals during care is undertaken in accordance with pound procedures and legislative and council requirements. 4.2 Safe work practices, procedures and environmental conditions are observed during handling, monitoring and care duties.
5 Release animals or reptiles to owners/carers or return to environment	5.1 Decision to release or restore animal to environment is in accordance with relevant legislation and procedures. 5.2 Auction of unclaimed stock is performed according to council procedures. 5.3 Recovery of costs and revenue is assessed and enforced according to relevant legislation and procedures.
6 Report on animals or reptiles that are captured, impounded or disposed of	6.1 Reports containing accurate information drawn from council registers are forwarded to relevant officers or authorities.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- computers
- video, voice recorders and radio communication
- preparing and issuing instructions and/or explanations to the public
- reporting to council

Required Knowledge

- animal and reptile behaviour
- predators
- dominance
- fear
- aggression
- applicable impounding techniques
- animal and reptile handling and disabling techniques
- animal and reptile dietary and impounding needs
- routine medicinal, chemical and dipping application
- animal health treatment
- humane disposal techniques
- safe and effective use of firearms
- stock brands
- identification tags
- microchip reading
- local area geography
- terrain
- urban and rural navigation
- relevant statutes
- notice-serving process
- court evidence
- traffic control licensing requirements and direction

Evidence Guide

Overview of assessment requirements

A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work

	practices that underpin the performance of the unit are also required to be demonstrated.
Critical aspects of evidence to be considered	<p>Impounding techniques used are appropriate to animal or reptile species and the condition of the animal or reptile.</p> <p>Assessments of animal or reptile health and condition, and the appropriate disposal of animals or reptiles, are in accordance with council policies and procedures.</p> <p>Traffic control is in accordance with relevant licensing requirements.</p> <p>Use of firearms is in accordance with relevant licensing requirements.</p> <p>Notices are served in accordance with council regulations.</p> <p>Safe work practices and concern for public safety are displayed by care and control staff.</p>
Context of assessment	<p>On the job or in a simulated work environment.</p> <p>Written or oral testing.</p>
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> • observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies • written and/or oral questioning to assess knowledge and understanding • completion of workplace documentation • third-party reports from experienced practitioners • completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor
Evidence required for demonstration of consistent performance	Competency in duties may be displayed with domestic animals, livestock, wildlife or reptiles.
Resource implications	Access to a workplace or simulated environment that encompasses impounding processes, techniques and equipment.

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in

the Performance Criteria is detailed below.

Animals or reptiles may include:

- domestic pets
- livestock
- feral animals
- native animals
- reptiles

Capture or control may include:

- traps
- poles and ropes
- tongs
- tranquilliser guns
- firearms
- vehicles
- loading and yarding
- health, condition and behaviour of animal or reptile from observation or reports
- supervision of, or communication to, other staff or agency personnel
- disposal of deceased animals or reptiles

Transport may include:

- dedicated or contracted transport
- appropriate for care and human safety.

Ownership issues may include:

- verification of claims to ownership by such things as tags or microchips
- recovery of costs relating to transport, sustenance and penalties

Unit Sector(s)

Regulatory Services

LMFGG2002B Apply First Aid

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the competency to identify the need for and the application of First Aid until the arrival of medically qualified personnel or the evacuation of the patient.
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Application of the Unit

Application of the unit	
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	Nil	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify the need for First Aid	<p>1.1. Initial assessment is made of extent and nature of First Aid required from personal observation and/or witness reports</p> <p>1.2. Initial assessment is reported to personnel/emergency services in accordance with workplace procedures</p>
2. Ensure the safety of patient and carer	<p>2.1. Hygiene is maintained for protection of patient and carer</p> <p>2.2. Hazards to the patient and carer are identified and appropriate action is taken to prevent further injury to either party</p> <p>2.3. Patient is made as comfortable as possible and reassured by word, manner and actions</p>
3. Assess patient and apply First Aid	<p>3.1. Patient is assessed against the DRABC (danger, response, airway, breathing, ventilation and circulation) model</p> <p>3.2. Vital signs are measured, recorded and any changes noted and reported as appropriate</p> <p>3.3. Treatment appropriate to the patient's injuries is provided in accordance with recognised First Aid techniques</p> <p>3.4. First Aid equipment is operated/applied in accordance with recognised procedures and standards</p> <p>3.5. Patient's condition is monitored and reported as required by workplace procedures, with treatment being modified as appropriate</p> <p>3.6. Treatment is maintained until qualified medical assistants assume responsibility or until the patient is evacuated</p> <p>3.7. Provide additional assistance as requested by</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>medical/emergency services personnel</p> <p>3.8.Details of First Aid administered are reported in accordance with workplace procedures</p>
4. Complete work	<p>4.1.First Aid equipment is recovered (if practical), cleaned, inspected/tested, refurbished, replaced and stored as appropriate</p> <p>4.2.Medical waste is disposed of in accordance with workplace requirements</p> <p>4.3.Equipment faults are rectified and reported in accordance with workplace procedures</p> <p>4.4.Documentation is completed as required by legislative, regulatory and workplace requirements</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- collect, organise and analyse information related to workplace health and safety systems and procedures and the application of these to work situations
- communicate ideas and information on workplace safety issues, including the treating and recording/reporting of workplace incidents/accidents/illnesses and interpersonal communication with casualties
- plan and organise activities, including the inspection of first aid support facilities and treatment areas to ensure their completeness, adequacy, equipment and serviceability
- work with others and in a team to promote an awareness of first aid within the workplace and its provision when required
- use mathematical ideas and techniques to correctly complete measurements and calculations associated with assessment, treatment and monitoring of patient's condition
- use problem solving skills to assess and determine treatments and priorities in providing first aid to a patient
- use the workplace technology related to the reporting, recording and responding to workplace injuries and illnesses

Required knowledge

- workplace procedures and requirements for the treatment of workplace

REQUIRED SKILLS AND KNOWLEDGE

injuries/illnesses

- reporting responsibilities and requirements
- the provision of first aid including:
 - systems of the body (respiratory, skeletal, digestive, circulatory, nervous, urinary, skin)
 - causes and management of unconsciousness
 - priorities for life support (DRABC model)
 - resuscitation techniques
 - bleeding control and laceration treatment
 - patient assessment
 - principles of initial patient management
 - management and treatment of fractures and soft tissue injuries
 - management and treatment of burns

Evidence Guide**EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects of evidence

- Accurately follow workplace procedures for reporting injuries/illnesses and providing First Aid in the workplace
- Identify and respond to injuries/illnesses occurring in the workplace
- Apply emergency response First Aid
- Provide appropriate treatment to and monitor patient's condition
- Accurately report and document injuries and illnesses and treatment provided

Resource implications

First Aid kit, stretchers and medical/First Aid facility
Enterprise health and safety policies and procedures
Personal protective equipment
Patients

Method of assessment

Assessment should be by direct observation of tasks and questioning on underpinning knowledge.

EVIDENCE GUIDE	
	Assessment may be conducted in conjunction with assessment of other relevant units of competency.
Context of assessment	Assessment may occur on the job or in a workplace simulated facility with relevant equipment, work instructions, casualties and urgency.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Unit context	<ul style="list-style-type: none"> • The provision of First Aid and workplace responsibilities is to conform to OHS legislation, material safety management systems, hazardous substances and dangerous goods code and local safe operating procedures • Work is carried out in accordance with legislative obligations, relevant health regulations and organisation insurance requirements • Work involves assessing situations, identifying appropriate control measures, awareness of emergency services responsibilities and responsiveness, treating injuries and maintaining equipment • Work may be conducted without supervision and guidance
First Aid	<ul style="list-style-type: none"> • First Aid is that assistance given to a patient who has suffered an injury or illness in the workplace. It is that assistance which is deemed necessary to attempt to resuscitate, stabilise and/or treat the patient until qualified medical personnel assume responsibility or until the patient is evacuated for appropriate medical treatment. • First Aid may include:

RANGE STATEMENT	
	<ul style="list-style-type: none"> • cardio-pulmonary resuscitation (CPR) • bleeding control • spinal injury care • basic patient management
Resources implications may include:	<ul style="list-style-type: none"> • First Aid kit • personal protective equipment • stretcher (may be improvised)
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation, regulations and enterprise policies and practices.
Information and procedures may include:	<ul style="list-style-type: none"> • OHS legislation, regulations, codes of practice, environmental legislation, Australian Standards and codes of practice relating to hazards in the workplace, including: <ul style="list-style-type: none"> • obligations under relevant safety and health legislation and common law • local medical and emergency services • provisions relating to roles and responsibilities of health and safety representatives and/or OHS committees • risk management policies and procedures • First Aid procedures <ul style="list-style-type: none"> • safe manual handling and lifting procedures • emergency, fire and accident procedures • materials safety procedures • personal safety procedures • procedures for the use of personal protective equipment • job procedures and work instructions
Emergency services may include:	<ul style="list-style-type: none"> • support provided by ambulance, police, fire or SES personnel and equipment
Personnel may include:	<ul style="list-style-type: none"> • supervisors • managers • team leaders • First Aid attendants/other medically trained staff • specified OHS personnel • other persons authorised or nominated by the enterprise or industry to perform, approve,

RANGE STATEMENT

	inspect and direct specified work
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Unit Sector(s)

Unit sector	Glass and Glazing
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

MEM05004C Perform routine oxy acetylene welding

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers preparing materials and performing routine oxy acetylene welding.
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Application of the Unit

Application of the unit	<p>This unit applies in a maintenance or manufacturing environment where the welding is not required to meet an Australian standard or equivalent. Fillet and butt welds would typically be performed on low carbon/mild steels.</p> <p>Where welding is required to meet Australian Standard 1554 General Purpose or equivalent codes, OHS regulations and/or licensing requirements, Unit MEM05022C (Perform advanced welding using oxy acetylene process) should be selected.</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Refer to Application of the Unit

Pre-Requisites

Prerequisite units	

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify weld requirements	1.1. Weld requirements are identified from job instructions. 1.2. Location of welds is identified in accordance with standard operating procedures and job specifications.
2. Prepare materials for welding	2.1. Materials are cleaned and prepared ready for welding.
3. Prepare equipment for welding	3.1. Welding equipment is set up correctly. 3.2. Settings and consumables are selected.
4. Perform routine welding using <i>oxy acetylene</i>	4.1. Safe welding practices are applied. 4.2. Materials are welded to job requirements. 4.3. Welds are cleaned in accordance with standard operating procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- preparing materials
- setting up welding equipment
- welding with oxy acetylene fuel gas
- reading and interpreting routine information on written job instructions, specifications and standard operating procedures
- following oral instructions
- using measurement skills for joint preparation and routine oxy acetylene welding

Required knowledge

Look for evidence that confirms knowledge of:

- preparatory requirements
- materials and consumables properties and characteristics
- equipment and equipment settings
- fuel gas properties and applications
- post welding treatments
- weld characteristics
- any applicable industry standards, NOHSC guides, State/Territory regulatory codes of practice/standards
- safe work practices and procedures
- safe welding practices
- use and application of personal protective equipment for routine oxy acetylene welding

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment

EVIDENCE GUIDE	
Guidelines for the Training Package.	
Overview of assessment	A person who demonstrates competency in this unit must be able to prepare materials and carry out routine oxy acetylene welding.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with performing routine oxy acetylene welding or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Materials	Mild and low carbon steel and cast iron
Prepared	Preheating, setting up jigs, fixtures, clamps, joint preparation
Equipment	Hoses, blowpipes, regulators
Consumables	Filler rods, fluxes
Oxy acetylene	The term 'oxy-acetylene' is used here to describe a range of fuel gases, including acetylene, LPG, hydrogen etc.
Cleaned	Fluxes

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	

Competency field

Competency field	Fabrication
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MEM05007C Perform manual heating and thermal cutting

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers performing manual heating, thermal cutting and gouging including the assembly and disassembly and operation of the equipment on a range of materials (ferrous, non-ferrous and non-metallic) using a variety of methods.
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Application of the Unit

Application of the unit	<p>This unit applies to manual, straight line cutting standards. Manual or automatic processes are used to cut and heat to specifications. Cutting may include flame gouging by hand. All work is carried out to legislative and regulatory requirements. Predetermined standards of quality and safety are observed and work is carried out following standard operating procedures.</p> <p>Band: A Unit Weight: 2</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assemble/disassemble plant and equipment	1.1. Accessories and equipment are correctly selected and assembled for manual heating and thermal cutting.
2. Operate heating and thermal cutting equipment	2.1. Cutting process and/or procedure appropriate for material is selected. 2.2. All safety procedures are observed. 2.3. Equipment start-up procedures are followed correctly to standard operating procedures. 2.4. Equipment adjustments are made correctly using standard operating procedures. 2.5. Appropriate cutting allowances are made. 2.6. Material is used in the most economical way. 2.7. Defects are identified and corrective action is taken to standard operating procedures. 2.8. Material is heated and cut to specification.

ELEMENT	PERFORMANCE CRITERIA
	2.9.Shape/size/length is to accepted workplace standards.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- performing pre-start checks
- safely starting equipment
- following standard operating procedures
- adjusting equipment to operating specifications
- making cutting allowances
- economising material and minimising wastage
- identifying cutting defects and taking corrective action
- heating and cutting materials to specifications
- reading and interpreting routine information on written job instructions, specifications and standard operating procedures. May include drawings
- following oral instructions
- performing measurements needed to meet the requirements of this unit
- entering routine and familiar information onto proformas and standard workplace forms

Required knowledge

Look for evidence that confirms knowledge of:

- cutting processes appropriate to various materials
- heating and cutting specifications
- procedures for heating and cutting
- the tools, equipment and techniques for heating and cutting
- assembling procedures for equipment and accessories
- hazards and control measures associated with manual heating and thermal cutting
- use and application of personal protective clothing and equipment
- equipment pre-checks and operation
- procedures for adjusting heating and cutting equipment

REQUIRED SKILLS AND KNOWLEDGE

- cutting allowances and reasons for applying them
- procedures for minimising waste material
- reasons for minimising waste material
- cutting defects and their causes
- procedures for correcting cutting defects
- tools, equipment and techniques required to correct cutting defects
- use and application of personal protective equipment
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to perform manual heating and thermal cutting.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.

Context of and specific resources for assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with manual heating/thermal cutting or other units requiring the exercise of the skills and knowledge covered by this unit.

EVIDENCE GUIDE	
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questions should not require language, literacy and numeracy skills beyond those required in this unit. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Cutting	Use of hand held and self-propelled straight line cutters
Process	Fuel gas, oxy fuel gas and air fuel gas
Material	Various thicknesses and types including ferrous, non-ferrous and non-metallic materials

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Fabrication
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MEM05012C Perform routine manual metal arc welding

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers preparing the materials and carrying out routine manual metal arc welding (MMAW).
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Application of the Unit

Application of the unit	<p>This unit applies in a maintenance or manufacturing environment where the welding is not required to meet an Australian standard or equivalent. Fillet and butt welds would typically be performed on low carbon/mild steels.</p> <p>Where welding is required to AS 1554 General Purpose or equivalent codes, occupational health and safety regulations and/or licensing requirements, Unit MEM05015D (Weld using manual metal arc welding process) should be selected.</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Refer to Application of the Unit

Pre-Requisites

Prerequisite units	

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify weld requirements	1.1. Weld requirements are identified from job instructions. 1.2. Location of welds is identified in accordance with standard operating procedures and job specifications.
2. Prepare materials for welding	2.1. Materials are cleaned and prepared ready for welding.
3. Prepare equipment for welding	3.1. Welding equipment is set up correctly. 3.2. Correct electrodes are selected to suit application and settings.
4. Perform routine welding using MMAW	4.1. Safe welding practices are applied. 4.2. Materials are welded to job requirements. 4.3. Welds are cleaned in accordance with standard operating procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- preparing materials and electrodes
- setting up welding equipment
- welding with MMAW
- reading and interpreting routine information on written job instructions, specifications and standard operating procedures
- performing measurements for joint preparation and routine MMAW

Required knowledge

Look for evidence that confirms knowledge of:

- material and equipment preparation
- properties and characteristics of materials and consumables
- weld characteristics
- equipment set-up and settings
- MMAW processes and properties
- post-welding treatments
- safe welding practices
- use and application of personal protective equipment

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to prepare materials and carry out routine manual metal arc welding (MMAW).

EVIDENCE GUIDE	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, i.e. the candidate is not in productive work, then appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with performing routine manual metal arc welding or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning should not require language, literacy and numeracy skills beyond those required in this unit. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Materials	Low and mild carbon steel or similar
Prepared	Cleaning, setting up jigs, fixtures, clamps, joint preparation
Welding equipment	Welding leads, welding machines, electrode holder etc.
Cleaned	Slag and spatter, cleaning, using files and grinders

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	

Competency field

Competency field	Fabrication
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MEM05015D Weld using manual metal arc welding process

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit of competency covers the preparation, positioning, fixing, and manual welding techniques associated with general trade level welding using manual metal arc welding (MMAW) equipment including the selection and set up of the equipment appropriate to both the material and the weld to be performed, carrying out the MMAW to prescribed standards, and examining for and correcting defects, in a range of welded fabrications.
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Application of the Unit

Application of the unit	<p>This unit of competency applies to welds associated with heavy or light metal fabrications. Welds are fillet and butt welds in all positions on a range of ferrous and non-ferrous materials that may include carbon steel or stainless steel. Weld quality would conform to Australian Standard 1554 General Purpose, American Bureau of Shipping (ABS) or equivalent.</p> <p>This unit has been primarily developed for Engineering Tradesperson - Fabrication apprenticeship training and the recognition of trade level skills in MMAW. It may also apply to other trade occupations requiring higher level MMAW welding skills.</p> <p>Where manual thermal processes associated with preparation, pre-heat and/or post-heat are required, MEM05007C Perform manual heating and thermal cutting and/or MEM05008C Perform advanced manual thermal cutting, gouging and shaping should be considered for selection.</p> <p>Band: A</p> <p>Unit Weight: 4</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM05012C	Perform routine manual metal arc welding
	MEM05051A	Select welding processes
	MEM05052A	Apply safe welding practices
	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare materials for manual metal arc welding (MMAW)	1.1. Weld requirements are identified from specifications and/or drawings 1.2. Materials are correctly prepared 1.3. Materials are assembled/aligned to specification, where required
2. Select welding equipment and consumables	2.1. Welding equipment and electrodes appropriate to the material and the weld are identified and selected
3. Assemble and set up welding equipment	3.1. Welding equipment is assembled and set up
4. Minimise and rectify distortion	4.1. Appropriate distortion prevention measures are selected and applied 4.2. Distortion is rectified
5. Weld to job specification using MMAW	5.1. Weld deposit is to specification 5.2. Joints are cleaned to specifications
6. Ensure weld conformance	6.1. Defects are rectified with minimum loss of sound metal using correct techniques and tools 6.2. Weld joints are visually inspected for conformance to specifications
7. Where required, maintain weld records	7.1. Where required, weld records are completed correctly

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- identifying and interpreting welding specifications including appropriate standards e.g. Australian Standard 1554 General Purpose, American Bureau of Shipping (ABS) or equivalent
- selecting and using appropriate tools and equipment

REQUIRED SKILLS AND KNOWLEDGE

- using a variety of welding machines and electrodes
- identifying and rectifying weld defects
- applying techniques for distortion prevention and rectification
- cleaning welds
- reading and interpreting information on sketches, written job instructions, specifications, standard operating procedures and engineering drawings
- recording routine information including routine weld records related to MMAW onto proformas and standard workplace forms
- following oral instructions
- measurement skills relating to joint preparation and MMAW

Required knowledge

Required knowledge includes:

- material preparation
- joint preparations
- electrode classification
- causes of distortion for materials within the scope of this unit
- causes of defects and methods of rectification
- the relationships between amperage, electrode and material
- safe welding practices
- use and application of personal protective equipment for MMAW

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to prepare materials, select and set up the welding equipment, carry out MMAW and examine for and correct defects, in a range of welding activities associated with MMAW. Competency in this unit cannot be awarded until all prerequisites have been satisfied.

Critical aspects for assessment and evidence required to demonstrate

Assessors must be satisfied that the candidate can competently and consistently apply the skills covered in

EVIDENCE GUIDE	
competency in this unit	<p>this unit of competency in new and different workplace situations and contexts. Critical aspects of assessment and evidence include:</p> <ul style="list-style-type: none"> • following all safety procedures to protect self, other workers and members of the public • identifying and interpreting specifications for MMA welding including Australian Standard 1554 General Purpose • interpreting welding specifications including standard welding symbols used to show weld procedure • selecting appropriate weld preparation methods for material and position of welds. • preparing materials, setting up of jigs, fixtures, clamps, etc. and joint preparation including bevelling • consistently welding different ferrous and non-ferrous materials to AS 1554 General Purpose or equivalent • identifying defects as described in the range statement across a range of welded materials • rectifying defects.
Context of and specific resources for assessment	<p>Welding to AS 1554 General Purpose or equivalent requires both theoretical knowledge and high level practical skills. The assessment process must be designed to identify consistent performance to the standard and the specifications across a range of materials and positions. The assessment must also identify a level of workplace performance in terms of defect rates and weld failure rates. It is recommended that assessment involve demonstrations of competency under both workshop and site conditions. This means that the ideal assessment environment is either on the job or a combination of both on and off the job.</p> <p>The competencies covered by this unit may be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p>
Method of assessment	<p>Typically an Engineering Tradesperson - Fabrication and other tradespersons engaged in welding are required to exercise MMAW skills and techniques across a range of jobs and specifications.</p> <p>A single assessment event is not appropriate. On the job assessment should be included as part of the assessment</p>

EVIDENCE GUIDE	
	<p>process wherever possible. Where assessment occurs off the job, judgement must consider evidence of the candidate's performance in a productive work environment that includes a sufficient range of appropriate tasks and materials to cover the scope of application for this unit.</p> <p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency.</p> <p>The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>
Guidance information for assessment	<p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with welding using MMAW process or other units requiring the exercise of the skills and knowledge covered by this unit.</p> <p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>

Range Statement

RANGE STATEMENT
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>

RANGE STATEMENT	
Welds	Welds include fillet and butt welds carried out in all positions
Materials	Materials may include ferrous materials including carbon or stainless steel, as well as non-ferrous metals and alloys suitable for MMA welding
Prepared	Preparation of materials may include: <ul style="list-style-type: none"> • pre-heating • setting up of jigs, fixtures and clamps • joint preparation (e.g. bevelling)
Equipment	Equipment may include AC or DC welding machines
Distortion prevention measures	Distortion prevention measures may include: <ul style="list-style-type: none"> • pre heating • setting up of jigs, fixtures and clamps
Rectified	Rectified refers to oxy acetylene, air arc equipment and grinding devices
Defects	Defects may include: <ul style="list-style-type: none"> • porosity • slag inclusions • discontinuities • lack of penetration • undercut

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	
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Co-requisite units		

Competency field

Competency field	Fabrication
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MEM05017D Weld using gas metal arc welding process

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit of competency covers the preparation, positioning, fixing, and manual welding techniques associated with general trade level welding using gas metal arc welding (GMAW) equipment including the selection and set up of the equipment appropriate to both the material and the weld to be performed, carrying out the GMAW to prescribed standards, and examining for and correcting defects, in a range of welded fabrications.
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Application of the Unit

Application of the unit	<p>This unit of competency applies to welds associated with heavy or light metal fabrications. Welds are fillet and butt welds in all positions on a range of ferrous and non-ferrous materials that may include carbon steel or stainless steel. Weld quality would conform to Australian Standard 1554 General Purpose, American Bureau of Shipping (ABS) or equivalent.</p> <p>This unit has been primarily developed for Engineering Tradesperson - Fabrication apprenticeship training and the recognition of trade level skills in GMAW. It may also apply to other trade occupations requiring higher level GMAW welding skills.</p> <p>Where manual thermal processes associated with preparation, pre-heat and/or post-heat are required, MEM05007C Perform manual heating and thermal cutting and/or MEM05008C Perform advanced manual thermal cutting, gouging and shaping should be considered for selection.</p> <p>Band: A</p> <p>Unit Weight: 4</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM05050B	Perform routine gas metal arc welding
	MEM05051A	Select welding processes
	MEM05052A	Apply safe welding practices
	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare materials for gas metal arc welding (GMAW)	1.1. Weld requirements are identified from specifications and/or drawings 1.2. Material is correctly prepared 1.3. Materials are assembled/aligned to specification where required
2. Select welding components and consumables	2.1. Welding machine settings, accessories and consumables are identified and selected
3. Assemble and set up welding equipment	3.1. Welding equipment is assembled and set up
4. Minimise and rectify distortion	4.1. Appropriate distortion prevention measures are selected and applied 4.2. Distortion is rectified
5. Weld to job specification using GMAW	5.1. Weld deposit is to specifications 5.2. Joints are cleaned to specifications
6. Ensure weld conformance	6.1. Weld joints are visually inspected for conformance to specifications 6.2. Defects are removed with minimum loss of sound metal using correct and appropriate techniques and tools
7. Maintain weld records as required	7.1. Weld records are completed correctly

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- identifying and interpreting welding specifications including appropriate standards e.g. Australian Standard 1554 General Purpose, American Bureau of Shipping (ABS) or equivalent
- selecting and using appropriate tools and equipment

REQUIRED SKILLS AND KNOWLEDGE

- using a variety of welding machines and electrodes
- identifying and rectifying weld defects
- applying techniques for distortion prevention and rectification
- cleaning welds
- reading and interpreting information on sketches, written job instructions, specifications, standard operating procedures and engineering drawings
- recording routine information including routine weld records related to GMAW onto proformas and standard workplace forms
- following oral instructions
- measurement skills relating to joint preparation and GMAW

Required knowledge

Required knowledge includes:

- types of gases and their uses
- the relationships between amperage/wire feed, voltage, gas flow, electrode and material
- the application of weld metal transfer (short arc, spray etc.)
- correct welding machine, leads, hand pieces and electrodes
- material preparation
- joint preparations
- electrode classification
- causes of distortion for materials within the scope of this unit
- safe welding practices
- use and application of personal protective equipment for GMAW

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to prepare materials, select and set up the welding equipment, carry out GMAW and examine for and correct defects, in a range of welding activities associated with GMAW. Competency in this unit cannot be awarded until all prerequisites have been satisfied.

EVIDENCE GUIDE	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Assessors must be satisfied that the candidate can competently and consistently apply the skills covered in this unit of competency in new and different workplace situations and contexts. Critical aspects of assessment and evidence include:</p> <ul style="list-style-type: none"> • following all safety procedures to protect self, other workers and members of the public • identifying and interpreting specifications for GMAW including Australian Standard 1554 General Purpose • interpreting welding specifications including standard welding symbols used to show weld procedure • selecting appropriate weld preparation methods for material and position of welds. • preparing materials, setting up of jigs, fixtures, clamps, etc. and joint preparation including bevelling • consistently welding different ferrous and non-ferrous materials to AS 1554 General Purpose or equivalent • identifying defects as described in the range statement across a range of welded materials • rectifying defects.
<p>Context of and specific resources for assessment</p>	<p>Welding to AS 1554 General Purpose or equivalent requires both theoretical knowledge and high level practical skills. The assessment process must be designed to identify consistent performance to the standard and the specifications across a range of materials and positions. The assessment must also identify a level of workplace performance in terms of defect rates and weld failure rates. It is recommended that assessment involve demonstrations of competency under both workshop and site conditions. This means that the ideal assessment environment is either on the job or a combination of both on and off the job.</p> <p>The competencies covered by this unit may be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p>
<p>Method of assessment</p>	<p>Typically an Engineering Tradesperson - Fabrication and other tradespersons engaged in welding are required to exercise GMAW skills and techniques across a range of jobs and specifications.</p>

EVIDENCE GUIDE	
	<p>A single assessment event is not appropriate. On the job assessment should be included as part of the assessment process wherever possible. Where assessment occurs off the job, judgement must consider evidence of the candidate's performance in a productive work environment that includes a sufficient range of appropriate tasks and materials to cover the scope of application for this unit.</p> <p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency.</p> <p>The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>
Guidance information for assessment	<p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with welding using GMAW process or other units requiring the exercise of the skills and knowledge covered by this unit.</p> <p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>

Range Statement

RANGE STATEMENT
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work</p>

RANGE STATEMENT	
situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Weld	Welds include fillet and butt welds carried out in all positions
Materials	Materials may include ferrous materials including carbon or stainless steel, as well as non-ferrous metals and alloys suitable for GMAW
Prepared	Preparation of materials may include: <ul style="list-style-type: none"> • pre-heating • setting up of jigs, fixtures and clamps • joint preparation (e.g. bevelling)
Equipment	Equipment may include AC or DC welding machines
Distortion prevention measures	Distortion prevention measures may include: <ul style="list-style-type: none"> • pre-heating • setting up of jigs, fixtures and clamps
Rectified	Rectified refers to oxy acetylene, air arc equipment and grinding devices
Defects	Defects may include: <ul style="list-style-type: none"> • porosity • slag inclusions • discontinuities • lack of penetration • undercut

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Fabrication
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MEM05019D Weld using gas tungsten arc welding process

Modification History

Not Applicable

Unit Descriptor

<p>Unit descriptor</p>	<p>This unit of competency covers the preparation, positioning, fixing, and welding techniques associated with general trade level welding using gas tungsten arc welding (GTAW) equipment including the selection and set up of the equipment appropriate to both the material and the weld to be performed, carrying out the GTAW to prescribed standards, and examining for and correcting defects, in a range of welded fabrications.</p>
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Application of the Unit

<p>Application of the unit</p>	<p>This unit of competency applies to welds associated with heavy or light metal fabrications. Welds are fillet and butt welds in all positions on a range of ferrous and non-ferrous materials that may include carbon steel or stainless steel and aluminium. Weld quality would conform to Australian Standard 1554 General Purpose, American Bureau of Shipping (ABS), or equivalent.</p> <p>This unit has been primarily developed to support Engineering Tradesperson - Fabrication apprenticeship training and the recognition of trade level skills in GTAW. It may also apply to other trade occupations requiring higher level GTAW welding skills.</p> <p>Where manual thermal processes associated with preparation, pre-heat and/or post-heat are required, MEM05007C Perform manual heating and thermal cutting and/or MEM05008C Perform advanced manual thermal cutting, gouging and shaping should be considered for selection.</p> <p>Band: A</p> <p>Unit Weight: 4</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM05049B	Perform routine gas tungsten arc welding
	MEM05051A	Select welding processes
	MEM05052A	Apply safe welding practices
	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare materials for gas tungsten arc welding (GTAW)	1.1. Weld requirements are identified from specifications and/or drawings 1.2. Material is correctly prepared 1.3. Materials are assembled/aligned to specification, where required
2. Select welding equipment and consumables	2.1. Welding equipment and electrodes, accessories and consumables appropriate to the material are identified and selected
3. Assemble and set up welding equipment	3.1. Welding equipment is assembled and set up
4. Minimise and rectify distortion	4.1. Appropriate distortion prevention measures for weld and material type are selected and applied 4.2. Distortion is rectified
5. Weld to job specification using GTAW	5.1. Weld deposit is to specifications 5.2. Joints are cleaned to specifications
6. Ensure weld conformance	6.1. Defects are removed with minimum loss of sound metal using techniques and tools appropriate to the defect, material and process 6.2. Weld joints are visually inspected for conformance to specifications
7. Maintain weld records as required	7.1. Weld records are completed correctly

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- identifying and interpreting welding specifications including appropriate standards e.g. Australian Standard 1554 General Purpose, American Bureau of Shipping (ABS) or equivalent
- selecting and using appropriate tools and equipment

REQUIRED SKILLS AND KNOWLEDGE

- using a variety of welding machines and electrodes
- identifying and rectifying weld defects
- applying techniques for distortion prevention and rectification
- cleaning welds
- reading and interpreting information on sketches, written job instructions, specifications, standard operating procedures and engineering drawings
- recording routine information including routine weld records related to GTAW onto proformas and standard workplace forms
- following oral instructions
- measurement skills relating to joint preparation and GTAW

Required knowledge

Required knowledge includes:

- correct welding machine, leads, hand pieces and electrodes
- material preparation
- joint preparations
- electrode classification
- causes of distortion for materials within the scope of this unit
- causes of defects and methods of rectification
- the relationships between amperage, electrode and material
- types of gases and their uses
- types of electrodes, current settings and high frequency voltage
- filler materials and consumables
- safe welding practices
- use and application of personal protective equipment for GTAW

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to prepare materials, select and set up the welding equipment, carry out the GTAW welding and examine for and correct defects, in a range of welding activities associated with GTAW. Competency in this unit cannot

EVIDENCE GUIDE	
	be awarded until all prerequisites have been satisfied.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Assessors must be satisfied that the candidate can competently and consistently apply the skills covered in this unit of competency in new and different workplace situations and contexts. Critical aspects of assessment and evidence include:</p> <ul style="list-style-type: none"> • following all safety procedures to protect self, other workers and members of the public • identifying and interpreting specifications for GTAW including Australian Standard 1554 General Purpose • interpreting welding specifications including standard welding symbols used to show weld procedure • selecting appropriate weld preparation methods for material and position of welds. • preparing materials, setting up of jigs, fixtures, clamps, etc. and joint preparation including bevelling • consistently welding different ferrous and non-ferrous materials to AS 1554 General Purpose or equivalent • identifying defects as described in the range statement across a range of welded materials • rectifying defects.
Context of and specific resources for assessment	<p>Welding to AS 1554 General Purpose or equivalent requires both theoretical knowledge and high practical skills. The assessment process must be designed to identify consistent performance to standard and specification across a range of materials and positions. The assessment must also identify a level of workplace performance in terms of defect rate and weld failure rates. It is recommended that assessment involve demonstrations of competency under both workshop and site conditions. This means that the ideal assessment environment is either on the job or a combination of both on and off the job.</p> <p>The competencies covered by this unit may be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p>
Method of assessment	Typically an Engineering Tradesperson - Fabrication and other tradespersons engaged in welding are required to exercise GTAW skills and techniques across a range of

EVIDENCE GUIDE	
	<p>jobs and specifications.</p> <p>A single assessment event is not appropriate. On the job assessment should be included as part of the assessment process wherever possible. Where assessment occurs off the job, judgement must consider evidence of the candidate's performance in a productive work environment that includes a sufficient range of appropriate tasks and materials to cover the scope of application for this unit.</p> <p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency.</p> <p>The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>
Guidance information for assessment	<p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with welding using GTAW process or other units requiring the exercise of the skills and knowledge covered by this unit.</p> <p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>

Range Statement

RANGE STATEMENT
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating</p>

RANGE STATEMENT	
conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Prepared	Prepared may include: <ul style="list-style-type: none"> • pre-heating • setting up of jigs, fixtures and clamps • joint preparation (e.g. bevelling)
Welds	Welds include fillet and butt welds carried out in all positions
Materials	Materials may include ferrous and non-ferrous materials including carbon steel, stainless steel, aluminium and other materials suitable for GTAW welding
Welding equipment	Welding equipment may include AC or DC welding machines
Distortion prevention measures	Distortion prevention measures may include: <ul style="list-style-type: none"> • pre-heating • setting up of jigs, fixtures and clamps
Rectified	Rectified may include: <ul style="list-style-type: none"> • oxy acetylene and air arc equipment • grinding devices
Defects	Defects may include: <ul style="list-style-type: none"> • porosity • slag inclusions • discontinuities • lack of penetration • undercut

Unit Sector(s)

Unit sector

Co-requisite units

Co-requisite units		

Competency field

Competency field	Fabrication
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MEM05049B Perform routine gas tungsten arc welding

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers preparing the materials and carrying out routine gas tungsten arc welding (GTAW).
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Application of the Unit

Application of the unit	<p>This unit applies in a maintenance or manufacturing environment where the weld quality is not required to meet an Australian Standard. Fillet and butt welds would typically be performed on low carbon/mild steels and aluminium.</p> <p>Where welding is required to meet Australian Standard 1554 General Purpose or equivalent codes, occupational health and safety regulations and/or licensing requirements, Unit MEM05019D (Weld using gas tungsten arc welding process) should be selected.</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Refer to Application of the Unit

Pre-Requisites

Prerequisite units	

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify weld requirements	1.1. Weld requirements are identified from job instructions. 1.2. The locations of welds are identified in accordance with standard operating procedures and job specifications.
2. Prepare materials for welding	2.1. Materials are cleaned and prepared ready for welding.
3. Prepare equipment for welding	3.1. Welding equipment is set up correctly. 3.2. Settings and consumables are selected to suit application.
4. Perform routine welding using GTAW	4.1. Safe welding practices are applied. 4.2. Materials are welded to job requirements. 4.3. Welds are cleaned to standard operating procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- preparing materials
- setting up welding equipment
- welding with GTAW
- reading and interpreting routine information on written job instructions, specifications and standard operating procedures
- using measurement skills for joint preparation and routine GTAW

Required knowledge

Look for evidence that confirms knowledge of:

- preparatory requirements
- properties and characteristics of materials and consumables
- equipment and equipment settings
- fuel gas properties and applications
- post welding treatments
- weld characteristics
- safe welding practices
- use and application of personal protective equipment for routine GTAW

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to perform routine gas tungsten arc welding (GTAW).

EVIDENCE GUIDE	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with carrying out routine gas tungsten arc welding or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Materials	Mild and low carbon steel
Prepared	Preheating, setting up jigs, fixtures, clamps, joint preparation
Equipment	Hoses, welding leads and gas shrouds, electrodes, gas regulator, liners, contact tips
Consumables	Tungsten electrodes, filler wire, shielding gas
Cleaned	Slag, spatter

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Fabrication
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MEM05050B Perform routine gas metal arc welding

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers preparing materials and routine gas metal arc welding (GMAW).
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Application of the Unit

Application of the unit	<p>This unit applies in a maintenance or manufacturing environment where the weld quality is not required to meet an Australian Standard or equivalent. Fillet and butt welds would typically be performed on low carbon/mild steels.</p> <p>Where welding is required to meet Australian Standard 1554 General Purpose or equivalent codes, occupational health and safety regulations and/or licensing requirements, Unit MEM05017D (Weld using gas metal arc welding process) should be selected.</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Refer to Application of the Unit

Pre-Requisites

Prerequisite units		

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify weld requirements	1.1. Weld requirements are identified from job instructions. 1.2. Locations of welds are identified in according to standard operating procedures and job specifications.
2. Prepare materials for welding	2.1. Materials are cleaned and prepared ready for welding.
3. Prepare equipment for welding	3.1. Welding equipment is set up correctly. 3.2. Settings and consumables are selected to suit application.
4. Perform routine welding using GMAW	4.1. Safe welding practices are applied. 4.2. Materials are welded to job requirements. 4.3. Welds are cleaned to standard operating procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- preparing materials
- setting up welding equipment
- welding with GMAW
- reading and interpreting routine information on written job instructions, specifications and standard operating procedures
- following oral instruction
- using measurement skills relating to joint preparation and routine GMAW

Required knowledge

Look for evidence that confirms knowledge of:

- different current and voltage settings, gas flow rates wire diameters, wire feed speed and other variables to suit typical situations.
- material and equipment preparation
- properties and characteristics of materials and consumables
- equipment and equipment settings
- fuel gas properties and applications
- post-welding treatments
- weld characteristics
- safe welding practices
- use and application of personal protective equipment for routine GMAW

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must

EVIDENCE GUIDE	
	be able to perform routine gas metal arc welding (GMAW).
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with preparing the materials and carrying out routine gas metal arc welding or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Materials	Mild and low carbon steel
Prepared	Preheating, setting up jigs, fixtures, clamps, joint preparation
Equipment	Hoses, welding leads, gas shrouds, gas regulators, liners, contact tips
Consumables	Filler wire, shielding gas
Cleaned	Slag and spatter

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	

Competency field

Competency field	Fabrication
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MEM18001C Use hand tools

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers using a range of hand tools for a variety of general engineering applications.
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Application of the Unit

Application of the unit	<p>Applications may include hand tools used for adjusting, dismantling, assembling and finishing of items or components, and the finishing, cutting, scraping of metallic and non-metallic material to size and shape. This includes simple tapping and threading and routine maintenance of hand tools.</p> <p>This unit should not be selected if the hand tool is dedicated to a single operation or machine and if only a machine specific/customised tool is used.</p> <p>When using hand held power tools or power tools used for hand held operations, refer to Unit MEM18002B (Use power tools/hand held operations).</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Use hand tools	<p>1.1. Hand tools are selected appropriate to the task requirements.</p> <p>1.2. Hand tools are used to produce desired outcomes to job specifications which may include finish, tension, size or shape.</p> <p>1.3. All safety requirements are adhered to before, during and after use.</p> <p>1.4. Unsafe or faulty tools are identified and marked for repair according to designated procedures before, during and after use.</p> <p>1.5. Routine maintenance of tools, including hand sharpening is undertaken according to standard</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>operational procedures, principles and techniques.</p> <p>1.6. Hand tools are stored safely in appropriate location according to standard operational procedures and manufacturers' recommendations.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- reading and following information on standard operating procedures
- following verbal instructions
- selecting hand tools appropriate to the task
- using hand tools safely
- identifying hand tool defects and marking for repair
- maintaining/sharpening hand tools using appropriate techniques
- storing hand tools in accordance with manufacturers'/standard operating procedures

Required knowledge

Look for evidence that confirms knowledge of:

- applications of different hand tools in a general engineering context
- common faults and/or defects in hand tools
- procedures for marking unsafe or faulty tools for repair
- routine maintenance requirements for a range of hand tools
- storage location and procedures for a range of hand tools
- hazards and control measures associated with using hand tools
- use and application of personal protective equipment
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	<p>A person who demonstrates competency in this unit must be able to use hand tools for a range of general engineering applications.</p>
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with using hand tools or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	<p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Hand tools	Hacksaws, hammers, punches, screwdrivers, sockets, wrenches, scrapers, chisels, gouges, wood planes and files of all cross-sectional shapes and types
Job specifications	Finish, tension, size or shape etc.
Routine maintenance	Cleaning, lubricating, tightening, simple tool repairs, hand sharpening and adjustments using engineering principles, tools, equipment and procedures

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	

Competency field

Competency field	Maintenance and diagnostics
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MEM18002B Use power tools/hand held operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers using a range of hand held power tools and fixed power tools for hand held operations for a variety of general engineering applications.
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Application of the Unit

Application of the unit	<p>This unit applies to loosening and fastening items or components and shaping, finishing, cutting, grinding metallic and non-metallic materials and/or tool bits to size and shape.</p> <p>This unit should not be selected if the power tools used are dedicated to an operation or machine, e.g. nut-runner, air drill, power driver, etc.</p> <p>For using hand tools, see Unit MEM18001C (Use hand tools).</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	
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Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Use power tools	<p>1.1. Power tools are selected appropriate to the task requirements.</p> <p>1.2. Power tools are used for a determined sequence of operations - which may include clamping, alignment and adjustment to produce desired outcomes - to job specifications which may include finish, size or shape.</p> <p>1.3. All safety requirements are adhered to before, during and after use.</p> <p>1.4. Unsafe or faulty tools are identified and marked for repair before, during and after use according to designated procedures.</p> <p>1.5. Operational maintenance of tools, including hand sharpening, is undertaken according to standard</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>workplace procedures, principles and techniques.</p> <p>1.6. Power tools are stored safely in appropriate location according to standard workshop procedures and manufacturers' recommendations.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- reading and following information on standard operating procedures
- following verbal instructions
- selecting power tools appropriate to the task
- using power tools safely
- using clamping/securing devices
- identifying power tool defects
- maintaining power tools using appropriate techniques
- sharpening tools/tool bits within the scope of this unit
- storing power tools according to manufacturers'/ standard operating procedures.

Required knowledge

Look for evidence that confirms knowledge of:

- application of different power tools
- clamping/securing methods
- adjustments/alignments to a range of power tools
- common faults and/or defects in power tools
- procedures for marking unsafe or faulty power tools for repair
- routine maintenance requirements of a range of power tools
- tool sharpening techniques for a range of power tools
- storage location and procedures of a range of power tools
- hazards/control measures associated with power tools
- use and application of personal protective equipment
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	A person who demonstrates competency in this unit must be able to use power tools/hand held operations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with using power tools/hand held operations or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning should not require language, literacy and numeracy skills beyond those required in this unit. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

EVIDENCE GUIDE

Guidance information for assessment	
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Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Power tools

Electric or pneumatic/hydraulic drills, grinders, jigsaws, nibblers, cutting saws, sanders, planers, routers, pedestal drills and pedestal grinders

Clamping

Multigrips, vices, jigs and fixtures, clamps etc.

Job specifications

Finish, size or shape etc.

Operational maintenance

Hand sharpening, cleaning, lubricating, tightening
Simple tool repairs and adjustments using engineering principles, tools, equipment and procedures to statutory and regulatory requirements

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Maintenance and diagnostics
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MSL904001 Perform standard calibrations

Modification History

Release 1. Supersedes and is equivalent to MSL904001A Perform standard calibrations

Application

This unit of competency covers the ability to calibrate test and measurement equipment in accordance with standard calibration procedures and documented test methods. These procedures/methods specify all associated reference standards, materials, equipment and methods to be used and the required parameters or quantities and ranges to be tested, including the criteria for rejection or approval.

This unit of competency is applicable to laboratory and calibration technicians who carry out tests and/or calibrations using standard calibration methods in first, second and third party laboratories, and laboratories where testing and/or calibration forms part of inspection or product certification. Personnel are not permitted to deviate from explicit instructions in any manner, modify the procedure, nor substitute alternative equipment. They work under limited supervision and results of their work are interpreted and checked by the laboratory supervisor, quality inspector or designated signatory.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Calibration

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 **Prepare items for** 1.1 Select the authorised calibration procedure in

- calibration** accordance with workplace procedures
- 1.2 Identify hazards and use appropriate personal protective equipment (PPE), safety equipment and procedures
 - 1.3 Confirm all measuring equipment meets the laboratory's specification requirements and complies fully with the calibration procedure
 - 1.4 Assemble and set up specified reference standards and associated equipment prior to testing
 - 1.5 Verify performance of reference standards and measuring equipment prior to use and adjust or calibrate as necessary
 - 1.6 Identify and minimise potential sources of measurement error
- 2 **Perform calibration**
- 2.1 Perform individual tests without variance according to the documented procedure to ensure repeatability of measurement
 - 2.2 Confirm readings are the result of a valid measurement and record data as required (as-found or before adjustment)
 - 2.3 Adjust device under test to bring readings within specification and record data (as-left or after adjustment) where required
 - 2.4 Analyse resulting test data to detect trends or inconsistencies that would significantly affect the accuracy or validity of test results
 - 2.5 Seek appropriate advice when interpretation of results is outside authorised scope of approval
- 3 **Document results**
- 3.1 Estimate and document uncertainty of measurement in accordance with workplace procedures, where required
 - 3.2 Document compliance/non-compliance with test requirements and/or specifications
 - 3.3 Record the results of each test/calibration accurately, unambiguously and objectively

- 3.4 Ensure confidentiality of workplace information
- 4 **Finalise calibration**
- 4.1 Prepare and issue a final report on the job/item detailing testing carried out, traceability, statement of compliance and relevant information as required
- 4.2 Report any non-compliance and verify next course of action with supervisor
- 4.3 Attach calibration labels, equipment stickers, quality control tags and tamper resistant seals as required in workplace procedures
- 4.4 Store test equipment/measurement standards and results in accordance with workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace procedures include the current version of one or more of:

- Australian and international standards and codes covering:
 - general requirements for the competence of testing and calibration laboratories, laboratory safety, quality and environmental management
 - accuracy of measurement methods and results, expression of uncertainty (GUM), quantifying uncertainty in analytical measurement, quality assurance of measurement equipment
- national work health and safety (WHS) standards and codes of practice

- registration/licensing and/or National Association of Testing Authorities (NATA) accreditation requirements
- safety requirements for equipment, materials or products; material safety data sheets (MSDS); and incident and accident/injury reports
- standard operating procedures (SOPs), recording and reporting procedures
- quality manuals, equipment and operating/technical manuals
- test methods and calibration procedures (validated and authorised)
- test methods and calibration procedures published by international, national or regional standards, reputable technical organisations, scientific texts or journals and equipment manufacturers
- laboratory layout, work flows and schedules

Standard calibrations

Standard calibrations include, but are not limited to, testing and/or calibrating the following equipment and reference materials using standard methods and procedures:

- test equipment, such as anemometers, balances, barometers, callipers, environmental chambers, hygrometers, manometers, masses, micrometers, pressure equipment, spectrophotometers, tape measures, rules, temperature (digital) indicating systems, thermometers, thermocouples, timing devices, vibration analysis equipment and weighing instruments
- electrical reference standards, such as air-lines, analogue meters, attenuators, bridges-manual balance, capacitors, DC voltage references, digital instruments (calibrators, DMMs, electronic transfer standards), inductors, instrument and ratio transformers, instrument transformer test sets, potentiometers, resistors, radio frequency (RF) power meters, RF thermistor mounts and thermal converters, shunts, time interval and frequency standards, transfer standards AC-DC, voltage dividers, volt ratio boxes and watt-hour references
- working standards, instruments and testing equipment, such as electromagnetic compatibility (EMC) test equipment, field strength meters, flammability test equipment, gauges/test fingers/test pins, hipot testers, impact hammers, impulse testers, instrument calibrators, network analysers, signal generators and spectrum and harmonic analysers

Hazards

Hazards include, but are not limited to, one or more of:

- electric shock

- disturbance or interruption of services
- manual handling of heavy equipment boxes
- sources of electromagnetic radiation (lasers and RF generators/transmitters)
- fluids under pressure
- heat sources, such as ovens

Safety procedures Safety procedures include, but are not limited, to one or more of:

- ensuring access to service shut-off points
- use of PPE, such as hearing protection, gloves, safety glasses and coveralls
- handling and storing hazardous materials and equipment in accordance with labels, MSDS, manufacturer's instructions, and workplace procedures and regulations
- regular cleaning of equipment and work areas

Reference materials Reference materials include, but are not limited to, one or more of:

- colour standards
- graded granular materials
- hardness blocks

WHS and environmental management requirements WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL904001A Perform standard calibrations

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL904001 Perform standard calibrations

Modification History

Release 1. Supersedes and is equivalent to MSL904001A Perform standard calibrations

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- selecting and applying appropriate test methods and calibration procedures
- safely calibrating test and measurement equipment in accordance with standard calibration procedures and documented test methods on at least two (2) occasions
- maintaining close attention to all relevant procedures, regulatory requirements and the accuracy and precision of measurement to ensure the quality and integrity of test/calibration results
- critically examining each calibration step to ensure repeatability and validity of data
- using calibration and correction charts
- performing calculations to give results in appropriate accuracy, precision and units
- using statistical analysis (means, ranges and standard deviations) and estimation of uncertainty of measurement, where required (can use software)
- preparing test/calibration documentation that is accurate and complies with requirements
- recognising problems or departures in systems and documentation and initiating actions to prevent or minimise them
- recognising and reporting opportunities for improvements.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- purpose of metrology and calibration, including common terminology, concepts, principles, procedures and applications
- National Association of Testing Authority's (NATA) and National Measurement Institute's (NMI) role in the measurement and testing system in Australia
- traceability, including legal requirements for traceability
- requirements for the competence of testing and calibration laboratories (e.g. AS ISO/IEC 17025) as they affect job role and responsibilities
- hierarchy and appropriate selection of reference materials and instruments
- non-conformance/non-compliance procedures and protocols associated with equipment, reference material and calibration procedures
- troubleshooting procedures for equipment and test methods
- reporting procedures and legislative requirements

- handling, transport, storage and operation of reference and working standards
- work health and safety (WHS) and laboratory environmental control requirements.

Additional knowledge requirements relevant to the workplace context that apply for different calibration fields must be assessed, including testing and calibration conducted in the following fields:

- acoustic and vibration measurement
- chemical testing
- construction materials testing
- electrical testing
- heat and temperature measurement
- mechanical testing
- metrology
- non-destructive testing
- optics and radiometry
- pressure measurement.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- This unit of competency may be assessed with:
 - MSL924001 Process and interpret data
 - relevant MSL974000 series unit/s of competency
 - relevant MSL975000 series unit/s of competency
- Holistic assessment methods include:
 - review of calibration results, uncertainty calculations and workplace documentation completed by the candidate
 - feedback from supervisors and/or customers regarding quality of calibration services provided by the candidate

- observation of the candidate performing standard calibrations
- oral or written questioning to check required knowledge of standard calibration procedures.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - specialised calibration/test equipment, reference standards and laboratory facilities
 - calibration methods, procedures and equipment specifications
 - workplace quality manual and procedures.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

MSL913002 Plan and conduct laboratory/field work

Modification History

Release 1. Supersedes and is equivalent to MSL913002A Plan and conduct laboratory/field work

Application

This unit of competency covers the ability to plan and complete tasks individually or in a team context. The tasks involve established routines and procedures using allocated resources with access to readily available guidelines and advice. Work plans may need to be modified with supervisor agreement to suit changing conditions and priorities.

This unit of competency is applicable to instrument operators, laboratory assistants and technical assistants working in all industry sectors.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Communication/organisation

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | | | |
|---|--|-----|---|
| 1 | Plan and organise daily work activities | 1.1 | Clarify allocated work activities and required resources if necessary |
| | | 1.2 | Prioritise work activities as directed |
| | | 1.3 | Break down work activities into small achievable |

- components and efficient sequences
- 1.4 Review work plan in response to new information, urgent requests, changed situations or instructions from appropriate personnel
 - 1.5 Update work plan and communicate changes to appropriate personnel
- 2 **Complete allocated work**
- 2.1 Locate relevant workplace procedures for required tasks
 - 2.2 Undertake tasks following prescribed and routine work-related sequences
 - 2.3 Seek assistance from relevant personnel when difficulties cannot be handled
 - 2.4 Record completion of activities to confirm outputs in accordance with plan
- 3 **Identify and resolve work problems**
- 3.1 Recognise problems or opportunities for improved work performance
 - 3.2 Apply agreed problem-solving strategies to consider possible causes and solutions
 - 3.3 Identify and access appropriate sources of help
 - 3.4 Consider available alternatives and keep them open before agreeing on the most appropriate action
- 4 **Work in a team environment**
- 4.1 Cooperate with team members to negotiate and achieve agreed outcomes, timelines and priorities
 - 4.2 Recognise personal abilities and limitations when undertaking team tasks
 - 4.3 Confirm personal role and responsibility within the team for particular outputs
 - 4.4 Demonstrate sensitivity to the diversity of other team members' backgrounds and beliefs

- 5 **Update knowledge and skills as required**
- 5.1 Recognise own strengths and weaknesses and take advantage of skill development opportunities

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering safety in laboratories, and quality and environmental management
- national work health and safety (WHS) standards and codes of practice

Ethical and professional work performance

Ethical and professional work performance includes:

- following workplace policy and procedures, regulations and legislation
- behaving honestly and openly
- respecting others and treating them with courtesy and impartiality
- working diligently and responsibly
- ensuring confidentiality of information, including client information and test results
- ensuring proprietary rights, intellectual property (IP) and copyright are protected

Workplace activities

Workplace activities include, but are not limited to, one or more of:

- set-up and pre-use checks of laboratory equipment
- calibration status checks
- sampling and testing following standard procedures
- maintenance and cleaning tasks

Workplace procedures

Workplace procedures include, but are not limited to, one or more of:

- standard operating procedures (SOPs)
- job descriptions, job cards, batch cards and production schedules
- test methods, recipes, procedures and protocols

Problem-solving strategies Problem-solving strategies include one or more of:

- accessing relevant documentation
- identifying inputs and outputs and sequencing a process
- identifying and rectifying a problem step
- obtaining timely help
- implementing preventative strategies wherever possible

Teams

Teams include one or more groups:

- with ongoing responsibility for particular services or functions
- who are project based
- who have a mixture of full and part-time employees and contractors, laboratory, construction and production personnel
- who are separated by distance and work at sites outside laboratory facilities

Team operation

Team operation occurs within one or more of:

- small, medium and large contexts
- internal and external environments
- workplace guidelines covering access and equity principles and practices, licensing requirements, industrial awards, workplace bargaining agreements and codes of practice
- agreed responsibility and accountability requirements
- appropriate goals, objectives and allocated resources

Strategies to maintain work flow

Strategies to maintain work flow include, but are not limited to, one or more of:

- communicating critical events on shift
- recognising shortages in reagents and problems with equipment
- communicating quality breakdowns
- recognising urgent and abnormal results to be processed
- communicating and behaving in a courteous manner
- being punctual

WHS and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL913002A Plan and conduct laboratory/field work

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL913002 Plan and conduct laboratory/field work

Modification History

Release 1. Supersedes and is equivalent to MSL913002A Plan and conduct laboratory/field work

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- clarifying tasks and recognising resource needs
- planning, prioritising and completing tasks individually or in a team context
- following workplace procedures consistently to achieve quality outputs within required timelines
- identifying and resolving work problems
- recognising potential disruptions or changed circumstances and modifying work plan in conjunction with relevant personnel
- working effectively with team members who may have diverse work styles, cultures and perspectives
- promoting cooperation and good relations
- conducting work based on ethical values and principles
- adjusting to a variety of working environments
- seeking assistance from relevant personnel if difficulties arise.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- workplace procedures covering:
 - customer service and quality
 - work health and safety (WHS) and environmental legislative requirements relevant to job role
 - technical work that the candidate routinely performs
- ethical issues relevant to the nature of the candidate's work
- problem-solving strategies
- interpersonal communication and conflict resolution techniques.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace, or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL913001 Communicate with other people
 - MSL943002 Participate in laboratory or field workplace safety
 - technical units related to the tasks undertaken
- Holistic assessment methods include:
 - review of documents detailing completed tasks, such as completed job cards, a report or suggestions for quality improvements
 - feedback from supervisors, peers and team members
 - review of a flowchart prepared by the candidate to show efficient sequencing of tasks
 - written or oral questions to partly assess the candidate's ability to handle a range of contingencies and work in a team environment
 - observation of the candidate performing a range of technical tasks over sufficient time to demonstrate their handling of a variety of contingencies.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - workplace procedures, equipment and materials for relevant technical tasks.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

MSL922001 Record and present data

Modification History

Release 1. Supersedes and is equivalent to MSL922001A Record and present data

Application

This unit of competency covers the ability to record and store data, perform simple calculations of scientific quantities and present information in tables and graphs. The unit of competency requires personnel to solve predictable problems using clear information or known solutions. Where alternatives exist, they are limited or apparent.

This unit of competency is applicable to production operators, field assistants and laboratory assistants working in all industry sectors.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Data

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | | | |
|---|------------------------------|-----|--|
| 1 | Record and check data | 1.1 | Enter data into laboratory information system or record sheets as directed |
| | | 1.2 | Check data to identify transcription errors or atypical entries |
| | | 1.3 | Rectify errors in data using workplace procedures |

2	Calculate simple scientific quantities	2.1	Calculate simple scientific quantities using given formulae and data
		2.2	Ensure calculated quantities are consistent with estimations and expectations
		2.3	Report all calculated quantities with appropriate precision and units
3	Present data	3.1	Present data accurately in tables, charts and graphs using given formats and scales
		3.2	Recognise and report obvious features and trends in data
4	Store and retrieve data	4.1	File and store data in accordance with workplace procedures
		4.2	Maintain workplace confidentiality standards

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or enterprise requirements include the latest version of one or more of:

- relevant Australian and international standards, such as the international system of units (SI) and its application
- national measurement regulations and guidelines

Data

Data includes:

- worksheets, spreadsheets or databases linked to information management systems
- results of observations, tests and measurements, or surveys
- graphs, tables and control charts
- semi quantitative observations expressed on a scale e.g. 1 to 4 or + to ++++

Work health and safety (WHS) and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL922001A Record and present data

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL922001 Record and present data

Modification History

Release 1. Supersedes and is equivalent to MSL922001A Record and present data

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- accurately coding, checking, recording and storing data in the required format
- performing simple calculations involving scientific quantities, with or without a calculator or computer software. The following must be performed:
 - decimals, fractions, ratios, proportions and percentages
 - unit conversion, multiples and submultiples
 - use of significant figures, rounding off, estimation and approximation
 - substitution of data in formulae
 - conversions between SI units
 - performing at least five (5) of the following calculations:
 - perimeters
 - angles
 - areas (m^2) and volumes (mL, L, m^3) of regular shapes (e.g. packaging and moulds)
 - average mass, mass %, density, specific gravity, moisture, relative and absolute humidity
 - ratios, such as mass to mass, mass to volume and volume to volume percentages
 - industry specific ratios, such as g/cm^2 , kg/m^2
 - concentration (e.g. $g/100mL$, mg/L , mg/L)
 - dilution
 - statistical values, such as mean, median, mode and standard deviation
 - average count, colonies per swab surface and cell counts (live and dead/total)
 - process variables, such as pressure, velocity and flow rates
 - % content of moisture, ash, fat, protein, alcohol, sulphur dioxide and trace metals, such as calcium or zinc
 - food properties, such as % concentration (dry), friability, bitterness, brix, free amino nitrogen, diastatic power, calorific content and yeast viability
- preparing and interpreting straightforward tables, graphs and charts of data
- recognising obvious features and trends in data, including:
 - maximum and minimum values
 - spread of data

- increasing/decreasing data, rate of change
- outliers, data beyond control limits or normal range
- presenting accurate results in the required format
- maintaining the confidentiality of data in accordance with workplace and regulatory requirements.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- concepts of metrology, including:
 - that all measurements are estimates
 - repeated measurements belong to a sample of the measured parameter
 - repeatability, precision, accuracy and significant figures
- the international system of units (SI)
- scientific and technical terminology relevant to job role
- procedures for coding, entering, storing, retrieving and communicating data
- procedures for verifying data and rectifying mistakes
- procedures for maintaining and filing records, and security of data

work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment, and assessment evidence must be relevant to the particular workplace context. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in either case).
- This unit may be assessed with technical units, such as:
 - MSL973001 Perform basic tests
 - MSL973002 Prepare working solutions
 - MSL973007 Perform microscopic examination
- Holistic assessment methods include:

- review of data worksheets, calculations, graphs and tables prepared by the candidate
- review of records transcribed, maintained or stored by the candidate
- feedback from supervisors and peers
- observation of the candidate as they record data and perform calculations
- questions to assess understanding of relevant procedures and trends in data.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - data sets and records
 - computer and relevant software or laboratory information system
 - relevant workplace procedures.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

MSL924001 Process and interpret data

Modification History

Release 1. Supersedes and is equivalent to MSL924001A Process and interpret data

Application

This unit of competency covers the ability to retrieve data, evaluate formulae and perform scientific calculations, present and interpret information in tables and graphs and keep accurate records. The unit requires personnel to solve problems of limited complexity where the information may be less obvious, but not contradictory, and can be determined by direct reasoning.

This unit of competency is applicable to laboratory assistants, field/laboratory technicians and instrument operators in all industry sectors.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Data

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | | | |
|---|--------------------------------|-----|---|
| 1 | Retrieve and check data | 1.1 | Store and retrieve data using appropriate files and/or application software |
| | | 1.2 | Verify the quality of data using workplace procedures |
| | | 1.3 | Rectify errors in data using workplace procedures |

- | | | |
|---|---|---|
| 2 | Calculate scientific quantities | 2.1 Calculate statistical values for given data |
| | | 2.2 Calculate scientific quantities using given formulae and data and estimate uncertainties |
| | | 2.3 Ensure calculated quantities are consistent with estimations and expectations |
| | | 2.4 Report all calculated quantities using the appropriate units and correct number of significant figures |
| | | |
| 3 | Present data | 3.1 Present data in clearly labelled tables, charts and graphs |
| | | 3.2 Graph data using appropriate scales to span the range of data or display trends |
| | | 3.3 Report all data using the appropriate units and number of significant figures |
| | | |
| 4 | Interpret data | 4.1 Interpret significant features of tables, charts and graphs, including gradients, intercepts, maximum and minimum values, and limit lines |
| | | 4.2 Recognise and report trends in data |
| | | |
| 5 | Keep accurate records and maintain confidentiality | 5.1 Transcribe information accurately |
| | | 5.2 Verify the accuracy of records following workplace procedures |
| | | 5.3 File and store workplace records in accordance with workplace procedures |
| | | 5.4 File all reference documents logically and keep them up-to-date and secured |
| | | 5.5 Observe workplace confidentiality standards |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or enterprise requirements include the latest version of one or more of:

- Australian and international standards, guides and the National Association of Testing Authorities (NATA) Technical Notes that cover the application of international system of units (SI), accuracy of measurement methods and results, and quantifying uncertainty in measurement
- national measurement regulations and guidelines
- validated sampling and test procedures and spreadsheets developed in-house for assay and process calculations where applicable
- workplace procedures, manuals and/or plans covering quality assurance, customer service, material safety data sheets (MSDS), equipment, supplier catalogues and handbooks

Data

Data includes:

- worksheets, spreadsheets and/or databases linked to information management systems
- results of observations, tests and measurements, analyses, surveys and/or quality assurance and control assessments
-

Calculations

Calculations are performed with or without a calculator and using computer software, spreadsheets, databases and statistical packages

Records

Records include information associated with one or more of:

- purchase of equipment and materials, service records

- safety procedures
- history of calibration and test results

Work health and safety (WHS) and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL924001A Process and interpret data

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL924001 Process and interpret data

Modification History

Release 1. Supersedes and is equivalent to MSL924001A Process and interpret data

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- retrieving coding, recording and checking data
- calculating scientific and statistical quantities with or without a calculator or computer software, including the following items:
 - converting units involving multiples and submultiples
 - scientific notation, significant figures, round off, estimate and approximate
 - transposing and evaluating formulae
 - fractions, decimals, proportions and percentages
 - mean
 - median
 - mode
 - standard deviation
- performing at least five (5) of the following calculations:
 - perimeters and angles
 - percentage and absolute uncertainties in measurements and test results
 - areas (m^2) and volumes (mL , L , m^3) of regular shapes, such as packaging
 - dose (mg), average mass, mass percentage, density, specific gravity, moisture, relative and absolute humidity, viscosity and permeability
 - ratios, such as mass to mass, mass to volume and volume to volume percentages
 - concentration, such as molarity, $g/100mL$, mg/L , ppm , ppb , dilution mL/L
 - average count, colonies per swab surface and cell counts, such as live and dead/total
 - process variables, such as pressure, gauge pressure, velocity and flow rates
 - biological oxygen demand (BOD), chemical oxygen demand (COD) and total organic carbons (TOC)
 - food properties, such as % concentration (dry), friability, bitterness, brix, free amino nitrogen, diastatic power, calorific content and yeast viability, % content of moisture, ash, fat, protein, alcohol, sulphur dioxide and trace metals, such as calcium or zinc
 - mechanical properties, such as stress, strain, moduli and force
 - presenting accurate results in the required format (significant figures, uncertainty units)
- preparing and presenting data in the following formats:

- tables
- graphs
- line graphs
- histograms
- pie charts, bar charts and control charts
- semi-quantitative observations expressed on a scale (e.g. 1 to 4 or + to ++++)
- recognising and interpreting significant points, anomalies and trends in data
- maintaining the confidentiality of data in accordance with workplace and regulatory requirements
- keeping accurate records that are up-to-date and secure.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- concepts of metrology, including:
 - that all measurements are estimates
 - measurements belong to a population of measurements of the measured parameters
 - repeatability, precision, accuracy and significant figures
 - sources of error, and uncertainty associated with measurement steps
 - traceability
- the international system of units (SI)
- scientific and technical terminology relevant to job role
- procedures for coding, entering, storing, retrieving and communicating data
- procedures for verifying data and rectifying mistakes
- procedures for maintaining and filing records, and maintaining security of data
- work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL924002 Use laboratory application software
 - technical units, such as:
 - relevant MSL973000 series units of competency
 - relevant MSL974000 series units of competency.
- Holistic assessment methods include:
 - review of data worksheets, calculations, computer files (such as spreadsheets, databases and statistical analysis), graphs, tables and/or charts prepared by the candidate
 - review of records transcribed, maintained or stored by the candidate
 - feedback from supervisors and peers
 - questions to assess understanding of calculations, relevant procedures and trends in data
 - observation of the candidate as they process data, file and store records.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - data sets and records
 - a calculator
 - spreadsheets, computer software, databases and statistical packages
 - computer and relevant software or laboratory information system
 - relevant workplace procedures.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

MSL924002 Use laboratory application software

Modification History

Release 1. Supersedes and is equivalent to MSL924002A Use laboratory application software

Application

This unit of competency covers the ability to use and apply computer software in the laboratory, field and/or production plants for analysis and reporting.

This unit of competency is applicable to technical officers and laboratory technicians in all industry sectors. It describes the application and use of software packages in the context of a laboratory or fieldwork. Typically this software would be for the storage, retrieval, analysis and display of information. There is no expectation that candidates would be able to customise the software to meet specific needs.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Data

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | | | |
|---|------------------------------------|-----|--|
| 1 | Access application software | 1.1 | Identify software required for the task |
| | | 1.2 | Open software from a personal computer or network terminal |
| | | 1.3 | Use information sources to locate details of software |

features and instructions for its use

- | | | | |
|---|--|-----|---|
| 2 | Use software for specified purposes | 2.1 | Input a range of scientific data into a computing system |
| | | 2.2 | Conduct searches for the retrieval of required data |
| | | 2.3 | Use application features for efficient computation |
| | | 2.4 | Construct data sets and databases for numerical and graphical analyses |
| | | | |
| 3 | Produce reports of retrieved data and/or processed data | 3.1 | Analyse data using features of the software package |
| | | 3.2 | Select options for constructing data reports |
| | | 3.3 | Print the results of data analyses using features of the software package |
| | | 3.4 | Integrate data from diverse application software units in a report |
| | | 3.5 | Report the outcomes and rationale for database searches where appropriate |
| | | 3.6 | Reference data sources according to the style requirements of the workplace |
| | | | |
| 4 | Perform simple record housekeeping | 4.1 | Maintain archived data according to workplace standard procedures |
| | | 4.2 | Maintain hard copy data according to workplace standard procedures |
| | | 4.3 | Apply approved antivirus software and standard quarantine procedures |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes of practice, workplace standard procedures

Where reference is made to Australian/international standards, industry codes of practice or workplace standard procedures, the latest version must be used

Information sources

Information sources include, but are not limited to, one or more of:

- printed and/or online manuals of workplace standard instructions
- printed and/or online manuals for hardware and software
- on-screen instructions embedded in the software
- printed and/or online training materials that orient software to workplace needs
- online networks and communities of practice

Software packages

Software packages include:

- common applications, such as word processing, spreadsheets and databases
- graphical and statistical analysis applications
- database and laboratory information management systems

Work health and safety (WHS) and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL924002A Use laboratory application software

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL924002 Use laboratory application software

Modification History

Release 1. Supersedes and is equivalent to MSL924002A Use laboratory application software

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- selecting the most appropriate software package for the task from the suite of software applications available
- using software for the analysis, reporting and management of laboratory and field data and information, such as quality control and instrument performance characteristics
- using software application features and instructions to input, save, analyse, sort, retrieve and display records and data
- using in-house software manuals to augment skills and solve operational problems
- using virus scanning software to protect in-house software and data.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- terminology associated with the software packages used in job role
- basic knowledge of the types of spreadsheet, database and data analysis packages that are available
- application of specific software package features to laboratory tasks relevant to job role
- relationship between the protocol for data input and file storage of the data
- general file and record maintenance
- work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.

- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL925001 Analyse data and report results
 - relevant MSL974000 series units of competency
 - relevant MSL975000 series units of competency
- Holistic assessment methods include:
 - review of analysis tasks linking test results to the generation of reports by the candidate
 - review of simple statistical and/or graphical analysis of quality control data completed by the candidate.
- Access is required to all instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - a computer network, personal computer or laptop
 - software packages that cover databases, spreadsheets, statistical analysis and simple graphics output
 - input and output data.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

MSL933001 Maintain the laboratory/field workplace fit for purpose

Modification History

Release 1. Supersedes and is equivalent to MSL933001A Maintain the laboratory/field workplace fit for purpose

Application

This unit of competency covers the general cleaning of work surfaces, cleaning and storage of equipment and the monitoring of laboratory stocks under direct supervision.

This unit of competency is applicable to laboratory assistants and instrument operators working in all industry sectors.

This unit of competency forms a major part of the work of laboratory assistants. They work in accordance with work instructions and standard operating procedures (SOPs) which incorporate all relevant aspects of work health and safety (WHS) legislation and the codes, guidelines, regulations and Australian Standards applying to environmental hazards and dangerous goods.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Quality

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | | | |
|---|--|-----|---|
| 1 | Clean work preparation areas | 1.1 | Clean preparation areas using appropriate cleaning agents and equipment according to workplace procedures |
| | | 1.2 | Remove spillages, if they occur, using appropriate agents, personal protective equipment (PPE) and workplace procedures |
| | | 1.3 | Collect and segregate wastes in accordance with workplace procedures, relevant codes and regulations |
| 2 | Clean, maintain and store equipment | 2.1 | Collect used equipment, inspect for faults and, where necessary, remove from service |
| | | 2.2 | Use appropriate agents, apparatus and techniques to clean equipment |
| | | 2.3 | Store clean equipment in the designated locations and manner |
| 3 | Monitor stocks of materials and equipment | 3.1 | Perform stock checks and maintain records of usage as directed |
| | | 3.2 | Store labelled stocks for safe and efficient retrieval |
| | | 3.3 | Inform appropriate personnel of impending stock shortages to maintain continuity of supply |
| 4 | Maintain a safe work environment | 4.1 | Use established safe work practices and PPE to ensure personal safety and that of other personnel |
| | | 4.2 | Report potential hazards and/or maintenance issues in own work area to designated personnel |
| | | 4.3 | Minimise the generation of waste and environmental impacts |
| | | 4.4 | Dispose of waste in accordance with workplace procedures, relevant codes and regulations |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards, guidelines and codes covering WHS; laboratory design and construction; occupational protective equipment; labelling of workplace substances; storage, handling and transport of dangerous goods; environmental management; physical containment levels and facility types
- industry specific codes, regulations and guidelines, such as Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) Codes of Practice, Australian Quarantine and Inspection Service (AQIS) Export Control (Orders) Regulations and Import Guidelines, gene technology regulations, National Health and Medical Research Council (NHMRC) Guidelines, and animal welfare

Typical equipment

Typical equipment includes, but is not limited to, one or more of:

- balances; glassware; plastic ware; glass, plastic and quartz cuvettes, pipettes, burettes and volumetric glassware
- blending, mixing and separating equipment, such as sieves and centrifuges
- autoclaves, dishwashers, refrigerators, freezers, ovens, hotplates, mantles, burners and muffle furnaces, microwave ovens, ultrasonic cleaners, incubators and water baths, and gas cylinders
- fume hoods, biohazard containers and biological safety cabinets
- microtomes and tissue processors, cell counters and staining machines
- colorimeters/spectrometers and polarimeters, light and fluorescence microscopes
- thermometers, thermohygrographs, hydrometers, conductivity meters and pH meters and ion-selective electrodes, noise meters,

melting point apparatus, viscometers and instrument chart recorders

- steel ruler/tapes and spirit levels, shovels, scoops, plates, rods, cylinder moulds and buckets
- rifflers and splitters and mixers, compaction rammers and soil classification equipment, penetrometers, force measuring equipment and tensiometers, and hardness testing equipment
- animal cages
- vehicles

Typical materials

Typical materials include, but are not limited to, one or more of:

- consumable items, such as syringes, pipette tips and weigh boats
- PPE
- distilled water, reagents, chemicals, disinfectants, detergents, agar media and plates
- equipment spares, such as fuses, bulbs and batteries
- oils/lubricants, fuels, industrial gases and cryogenics, such as dry ice and liquid nitrogen
- paper and stationery
- reference samples and standards

Cleaning requirements

Cleaning requirements include one or more of:

- decontamination and/or disinfection
- hygiene monitoring
- minimising environmental impacts
- operation of automatic cleaning apparatus, such as pipette washers, ultrasonic cleaners and dishwashers
- sterilisation and disposal of wastes using boiling, high pressure air or steam, microwaves, chemicals, gas, filtration, ultraviolet radiation and autoclaving
- use of specialised techniques, such as chromic acid baths and soaking in hypochlorite

Preparation areas

Preparation areas include one or more of:

- benches
- fume cupboards
- sheds
- sinks
-

- Agents for cleaning** Agents for cleaning include one or more of:
- cleaning solutions
 - decontaminants
 - organic solvents
- Spillages** Spillages include one or more of:
- chemicals
 - radioactive materials
 - biologically active materials
- Waste** Waste includes, but is not limited to, one or more of:
- broken glass and sharps
 - disposable PPE
 - spent reagents, spent or excess samples and test pieces, solvents and batteries
 - used containers, boxes, bags and palettes, plastic and metals
 - microorganisms
- Stock records** Stock records include one or more of:
- calibration and maintenance history
 - data sheets
 - handbooks, warranty documents, catalogues, manuals and material safety data sheets (MSDS)
 - records of usage, loans and breakages
- Maintenance issues** Maintenance issues include, but are not limited to, one or more of:
- hygiene issues, prevention of contamination, cleaning, recycling and waste disposal
 - checking materials and equipment are fit for purpose, equipment malfunction, and checking serviceability before storage
 - potential hazards, incidents and emergencies, spillages, leakages, breakages and contamination
 - stock requirements and shortages, and storage constraints
- Hazards** Hazards include, but are not limited to, one or more of:
- sharps, broken glassware and hand tools

- aerosols from broken centrifuge tubes and pipetting
- microbiological organisms and agents associated with soil, air, water, blood and blood products, and human or animal tissue and fluids
- chemicals, such as acids, heavy metals, pesticides and hydrocarbons
- sources of ignition, flammable liquids and gases
- cryogenic agents, such as dry ice and liquid nitrogen
- electric shock
- fluids under pressure, such as steam and industrial gas cylinders
- crushing, entanglement and cuts associated with moving machinery or falling objects
- manual handling, working at heights and working in confined spaces
- occupational overuse syndrome, slips, trips and falls
- pedestrian and vehicular traffic
- solar radiation, dust and noise

Established safe work practices

Established safe work practices include, but are not limited to, one or more of:

- applying containment procedures through the use of appropriate equipment, such as biohazard containers, laminar flow cabinets, Class I, II and III biohazard cabinets, and Class PCII, PCIII, and PCIV physical containment facilities
- ensuring access to service shut-off points
- following established manual handling procedures for tasks involving manual handling
- handling and storage of all hazardous materials and equipment in accordance with labelling, MSDS and manufacturer instructions
- identifying and reporting operating problems or equipment malfunctions
- labelling of samples, reagents, aliquoted samples and hazardous materials
- recognising and observing hazard warnings and safety signs
- reporting to appropriate personnel of abnormal emissions, discharges and airborne contaminants, such as noise, light, solids, liquids, water/wastewater, gases, smoke, vapour, fumes, odours and particulates
- use of PPE, such as hard hats, hearing protection, gloves, safety glasses, goggles, face guards, coveralls, gown, body suits, respirators and safety boots

WHS and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL933001A Maintain the laboratory/field workplace fit for purpose

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL933001 Maintain the laboratory/field workplace fit for purpose

Modification History

Release 1. Supersedes and is equivalent to MSL933001A Maintain the laboratory/field workplace fit for purpose

Performance Evidence

- Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:
- following workplace procedures, relevant codes and guidelines when maintaining the laboratory/field workplace
- applying information contained in material safety data sheets (MSDS) for materials handled regularly during the performance of maintenance tasks
- working safely and minimising exposure of hazards to self, others and the laboratory
- safely cleaning work preparation areas and equipment using appropriate cleaning agents, equipment and techniques
- safely removing spillages and disposing of wastes
- safely storing equipment and materials using workplace procedures, relevant codes and guidelines
- monitoring and reporting stock levels and the condition of laboratory materials and equipment
- keeping accurate, up-to-date records

reporting potential hazards and maintenance issues using workplace procedures.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- workplace procedures for the cleaning of work preparation areas, materials and equipment
- storage requirements for specific materials and equipment
- workplace procedures for minimisation and disposal of waste
- workplace procedures for monitoring of laboratory stocks
- work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.

- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL943002 Participate in laboratory or field workplace safety
- Holistic assessment methods include:
 - observation of the candidate's techniques for cleaning and/or removal of spillages and waste disposal
 - review of stock records completed by the candidate
 - feedback from supervisors and peers
 - questioning to assess required knowledge of regulations and procedures where direct observation is difficult (such as dealing with hazards) and choice of materials and equipment.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - work preparation areas, stocks, materials and equipment, cleaning, decontamination and/or disinfection agents and equipment
 - personal protective equipment (PPE)
 - stock order forms, labels and records/forms.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

MSL933004 Perform calibration checks on equipment and assist with its maintenance

Modification History

Release 1. Supersedes and is equivalent to MSL933004A Perform calibration checks on equipment and assist with its maintenance

Application

This unit of competency covers the ability to perform set-up, pre-use and in-house calibration/validation checks on equipment and assist with its maintenance.

This unit of competency is applicable to laboratory assistants working in all industry sectors.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Perform set-up and pre-use checks of laboratory equipment	1.1	Perform laboratory equipment set-up and pre-use checks in accordance with workplace procedures
	1.2	Perform safety checks in accordance with relevant workplace and instrumental procedures
	1.3	Identify faulty or unsafe components and equipment and report to appropriate personnel
	1.4	Complete equipment log books/records to meet

- workplace requirements
- 2 **Perform calibration checks**
 - 2.1 Start up equipment according to operating procedures
 - 2.2 Use specified standards for calibration check
 - 2.3 Check equipment in accordance with calibration procedures and schedules
 - 2.4 Record all calibration data accurately and legibly
 - 2.5 Compare data with specifications and/or previous records to identify non-compliant equipment
 - 2.6 Quarantine out-of-calibration equipment

 - 3 **Assist with equipment maintenance**
 - 3.1 Ensure all equipment work areas are clean during and after equipment use
 - 3.2 Perform basic maintenance in accordance with workplace procedures
 - 3.3 Clean and store equipment according to workplace and/or manufacturer's specifications/procedures
 - 3.4 Identify and replace, repair or dispose of damaged/worn equipment as appropriate

 - 4 **Maintain records**
 - 4.1 Record and report information on unsafe or faulty equipment according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the competence of testing and calibration laboratories, laboratory safety and quality management
- national work health and safety (WHS) standards and codes of practice, national measurement regulations and guidelines
- industry specific codes, regulations and guidelines, such as good laboratory practice (GLP)
- workplace documents, such as standard operating procedures (SOPs), quality and equipment manuals, calibration check and maintenance schedules, material safety data sheets (MSDS) and safety procedures, material, production and product specifications, production and laboratory schedules, workplace recording and reporting procedures, and waste minimisation and safe disposal procedures

Typical equipment

Typical equipment includes, but is not limited to, one or more of:

- balances; glassware; plastic ware; glass, plastic and quartz cuvettes, pipettes, burettes and volumetric glassware
- blending, mixing and separating equipment, such as sieves and centrifuges
- autoclaves, dishwashers, refrigerators, freezers, ovens, hotplates, mantles, burners and muffle furnaces, microwave ovens, ultrasonic cleaners, incubators and water baths, and gas cylinders
- fume hoods, biohazard containers and biological safety cabinets
- microtomes and tissue processors, cell counters and staining machines
- colorimeters/spectrometers and polarimeters, light and fluorescence microscopes
- thermometers, thermohygrographs, hydrometers, conductivity meters and pH meters and ion-selective electrodes, noise meters, melting point apparatus, viscometers and instrument chart recorders
- steel ruler/tapes and spirit levels, shovels, scoops, plates, rods, cylinder moulds and buckets
- riffles and splitters and mixers, compaction rammers and soil classification equipment, penetrometers, force measuring

equipment and tensiometers, and hardness testing equipment

WHS and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL933004A Perform calibration checks on equipment and assist with its maintenance

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL933004 Perform calibration checks on equipment and assist with its maintenance

Modification History

Release 1. Supersedes and is equivalent to MSL933004A Perform calibration checks on equipment and assist with its maintenance

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- performing set-up and pre-use checks for at least three (3) items of equipment
- recognising non-standard behaviour of equipment
- performing calibration checks for at least two (2) items of basic equipment using standard procedures
- obtaining reliable calibration data with the required accuracy and precision
- identifying non-compliant equipment by comparing calibration data with specifications and/or previous data records
- following workplace data recording and reporting procedures
- performing basic cleaning and/or maintenance tasks for at least three (3) items of equipment
- following all relevant work health and safety (WHS) and environmental management requirements.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- role and importance of regular calibration checks and maintenance of equipment
- function of key components of the equipment and details of the pre-use, calibration and safety checks and operating procedures for items of equipment used
- sources of uncertainty in equipment operation and their control
- basic equipment cleaning, maintenance and storage procedures for items of equipment used
- workplace procedures for recording data and reporting results
- relevant hazards, WHS and environmental management requirements.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.

- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL973001 Perform basic tests
- Holistic assessment methods include:
 - review of equipment log book entries, calibration data and maintenance records generated by candidate
 - feedback from peers and supervisors about the candidates ability to perform calibration checks and assist with basic maintenance
 - observation of the candidate performing equipment set-up, pre-use checks, shutdown procedures, calibration checks, cleaning and maintenance tasks
 - oral or written questioning to check required knowledge of workplace procedures for the safe use, cleaning and maintenance of the items of equipment used.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - standard laboratory equipped with appropriate equipment and reference materials; cleaning, decontamination and/or disinfection agents and equipment; and personal protective equipment (PPE)
 - workplace procedures, equipment manuals and information/records management system.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

MSL934002 Apply quality system and continuous improvement processes

Modification History

Release 1. Supersedes and is equivalent to MSL934002A Apply quality system and continuous improvement processes

Application

This unit of competency covers the exercise of good laboratory practice (GLP) and effective participation in quality improvement teams. Personnel are required to ensure the quality and integrity of their own work, detect non-conformances and work with others to suggest improvements in productivity and quality.

This unit of competency is applicable to laboratory technicians working in all industry sectors who contribute to quality improvements in areas or processes associated with their own job function and/or specialisation. This unit of competency is relevant to experienced technical officers who may work individually or as part of a team.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Quality

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | | | |
|---|-------------------------------|-----|--|
| 1 | Satisfy quality system | 1.1 | Access information on quality system requirements for own job function |
|---|-------------------------------|-----|--|

requirements in daily work	1.2	Record and report quality control data in accordance with quality system
	1.3	Follow quality control procedures to ensure products or data are of a defined quality as an aid to acceptance or rejection
	1.4	Recognise and report non-conformances or problems
	1.5	Conduct work in accordance with sustainable work practices
	1.6	Promote sustainability principles and work practices to other workers
	2 Analyse opportunities for corrective and/or optimisation action	2.1
2.2		Recognise variances that indicate abnormal or sub-optimal performance
2.3		Collect and/or evaluate batch and/or historical records to determine possible causes for sub-optimal performance
2.4		Use appropriate quality improvement techniques to rank the probabilities of possible causes
3 Recommend corrective and/or optimisation actions	3.1	Analyse causes to predict likely impacts of changes and decide on the appropriate actions
	3.2	Identify required changes to standards and procedures and training
	3.3	Report recommendations to designated personnel
4 Participate in the implementation of recommended actions	4.1	Implement approved actions and monitor performance following changes to evaluate results
	4.2	Implement changes to systems and procedures to eliminate possible causes
	4.3	Document outcomes of actions and communicate them to relevant personnel

- | | | | |
|---|--|-----|--|
| 5 | Participate in the development of continuous improvement strategies | 5.1 | Review all relevant features of work practice to identify possible contributing factors leading to sub-optimal performance |
| | | 5.2 | Identify options for removing or controlling the risk of sub-optimal performance |
| | | 5.3 | Assess the adequacy of current controls, quality methods and systems |
| | | 5.4 | Identify opportunities to continuously improve performance |
| | | 5.5 | Develop recommendations for continual improvements of work practices, methods, procedures and equipment effectiveness |
| | | 5.6 | Consult with appropriate personnel to refine recommendations before implementation of approved improvement strategies |
| | | 5.7 | Document outcomes of strategies and communicate them to relevant personnel |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the competence of testing and calibration laboratories,

quality management systems and plans, measurement management, and sampling and testing

- national work health and safety (WHS) standards and codes of practice, and National Association of Testing Authorities (NATA) accreditation program requirements
- national measurement regulations and guidelines
- specific codes, regulations guidelines, procedures and methods, such as Australia New Zealand Food Standards (ANZFS) Code, Australian code of good manufacturing practice for medicinal products (GMP), principles of good laboratory practice (GLP), National Health and Medical Research Council (NHMRC) Guidelines, and Therapeutic Goods Regulations
- workplace documents, such as standard operating procedures (SOPs); quality and equipment manuals; calibration and maintenance schedules; material safety data sheets (MSDS) and safety procedures; material, production and product specifications; production and laboratory schedules; workplace recording and reporting procedures; and waste minimisation and safe disposal procedures
- customer-specific requirements/standards

Quality control procedures

Quality control procedures include one or more of:

- standards imposed by regulatory and licensing bodies
- working to a customer brief or batch card and associated quality procedures
- checklists to monitor job progress against agreed time, costs and quality standards
- preparation of sampling plans
- the use of hold points to evaluate conformance
- the use of inspection and test plans to check compliance

Sustainable work practices

Sustainable work practices include, but are not limited to, one or more of:

- examining work practices that use excessive electricity
- switching off equipment when not in use
- regularly cleaning filters
- insulating rooms and buildings to reduce energy use
- recycling and reusing materials wherever practicable
- minimising process waste

Quality improvement

Quality improvement tools and techniques include using one or

tools and techniques	<p>more of:</p> <ul style="list-style-type: none">• plan, do, check, act (PDCA)• Ishikawa fishbone diagrams and cause and effect diagrams, logic tree, similarity/difference analysis, Pareto charts and analysis, force field/strength, weakness, opportunities, threats (SWOT) analysis• run charts, control charts, histograms and scattergrams to present routine quality control data• statistical analysis of quality control data, mean, median, mode, ranges and standard deviations
Communication	<p>Communication includes interactions with one or more:</p> <ul style="list-style-type: none">• supervisors, managers and quality managers• administrative, laboratory and production personnel• internal/external contractors, customers and suppliers
Quality improvement opportunities	<p>Quality improvement opportunities include, but are not limited to, one or more of:</p> <ul style="list-style-type: none">• production processes• hygiene and sanitation procedures• reductions in waste and re-work• laboratory layout and work flow• safety procedures• communication with customers• methods for sampling, testing and recording data
Documenting and reporting information about quality	<p>Documenting and reporting information about quality includes, but are not limited to, one or more of:</p> <ul style="list-style-type: none">• verbal responses• data entry into laboratory or workplace database• brief written reports using workplace proformas
WHS and environmental management requirements	<p>WHS and environmental management requirements include:</p> <ul style="list-style-type: none">• complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time• applying standard precautions relating to the potentially

hazardous nature of samples

- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL934002A Apply quality system and continuous improvement processes

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL934002 Apply quality system and continuous improvement processes

Modification History

Release 1. Supersedes and is equivalent to MSL934002A Apply quality system and continuous improvement processes

Performance Evidence

- Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:
- applying relevant quality control procedures and regulatory requirements to ensure the quality and integrity of the products/services or data provided in work area
- applying and promoting sustainability principles and work practices in work area
- detecting non-conforming products or services and recognising opportunities for improvements in work area
- using at least three (3) quality improvement tools and techniques to analyse performance in work area
- applying effective problem-solving strategies, such as identifying inputs and outputs, sequencing a process, identifying and rectifying a problem step, and root cause analysis
- following workplace procedures for recording and reporting information about quality
- implementing and monitoring approved actions, changes and improvement strategies consulting and working with other team members to suggest improvements in productivity and quality.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- business goals and quality requirements associated with job function and/or work area as a basis for decision making and action
- scientific and technical requirements of the processes, procedures, equipment and instrumentation associated with the candidate's work tasks and duties
- specifications for laboratory products and services in the work area
- sustainable energy principles
- workplace procedures associated with the candidate's regular technical duties
- layout of the workplace, divisions and laboratory
- organisational structure of the workplace
- lines of communication
- role of laboratory services to the workplace and customers
- work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL924001 Process and interpret data
 - MSL954001 Obtain representative samples in accordance with sampling plan
 - relevant MSL974000 series units of competency
 - relevant MSL975000 series units of competency
- Holistic assessment methods include:
 - review of documentation completed by the candidate as part of regular quality control
 - feedback from supervisors and/or customers regarding quality of products/services and/or data regularly provided by the candidate
 - observation of the candidate's performance and participation in quality improvement teams over time in the workplace
 - review of reports from quality improvement teams where the candidate's role is clearly outlined and verified
 - verified reports of improvements suggested and implemented by the candidate individually
 - use of suitable simulations and/or a pilot plant and/or a range of quality improvement case studies and scenarios.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - workplace quality manual and procedures, quality control data/records
 - customer complaints and rectifications.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.

- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

MSL934003 Maintain and control stocks

Modification History

Release 1. Supersedes and is equivalent to MSL934003A Maintain and control stocks

Application

This unit of competency covers the ability to order, maintain and control the use of laboratory materials and/or equipment in the work area.

This unit of competency is applicable to technicians and technical officers working in all industry sectors.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Quality

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Maintain and control stocks of materials or equipment	1.1	Label, document and store stocks in accordance with relevant standards and specific safety requirements
		1.2	Follow stock rotation procedures to maximise use of stocks within permitted shelf life
		1.3	Identify stock discrepancies and replace redundant or outdated stocks to maintain stocks at prescribed level

- 1.4 Identify and replace damaged/worn equipment or arrange for repairs or disposal as appropriate
 - 1.5 Initiate quality control sampling and testing procedures when appropriate
 - 1.6 Report stock problems outside own knowledge and authority limitations to relevant personnel
- 2 **Order and receive materials and equipment**
- 2.1 Determine requirements of customers and suppliers using appropriate communication and interpersonal skills
 - 2.2 Determine demand for stock, taking into account peak and seasonal variations in stock usage and production conditions
 - 2.3 Place and/or follow up approved orders using workplace systems and procedures
 - 2.4 Check condition of received goods and take appropriate action
- 3 **Maintain stock records**
- 3.1 Record all relevant details accurately using the specified forms/computer system
 - 3.2 Ensure that written information is legible and indelible
 - 3.3 File all records in the designated place
- 4 **Maintain a safe work environment**
- 4.1 Use established safe work practices and personal protective equipment (PPE) to ensure personal safety and that of other laboratory personnel
 - 4.2 Minimise the generation of wastes and environmental impacts
 - 4.3 Ensure the safe collection of redundant/outdated stocks for subsequent disposal

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the competence of testing and calibration laboratories; laboratory design and construction; laboratory safety; quality and environmental management; and labelling, storage, handling and transport of hazardous substances
- national work health and safety (WHS) standards and codes of practice, national measurement regulations and guidelines, and national environmental protection measures
- specific legislation, regulations, codes, guidelines, procedures and methods, such as Australian code of good manufacturing practice for medicinal products (GMP), principles of good laboratory practice (GLP), dangerous goods, animal welfare, Australian Quarantine and Inspection Service (AQIS) Export Control Orders and Import Guidelines, Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), gene technology, and National Health and Medical Research Council (NHMRC)
- workplace documents, such as standard operating procedures (SOPs); quality and equipment manuals; calibration and maintenance schedules; material safety data sheets (MSDS) and safety procedures; material, production and product specifications; production and laboratory schedules; workplace recording and reporting procedures; and waste minimisation and safe disposal procedures
- customer database and supplier catalogues, customer-specific requirements/standards, internal/external stock orders and overdue actions

Workplace

Workplace procedures include, but are not limited to, one or more of:

procedures

- ordering, purchase and receipt of stocks
- verification of temperature control for delivered and stored stocks (e.g. reagents containing enzymes)
- organisation of compatible batch or lot numbers
- storage of stocks, stock control and rotation of stock
- quality control testing, monitoring of use by dates of standards and shelf life of reagents (e.g. DNA, enzymes, antibodies, radioisotopes and vitamins)
- reporting non-conformances

Records

Records include, but are not limited to, one or more of:

- current inventories, stock usage, orders and progress of orders
- equipment servicing and repairs
- quality control sampling, testing and stock rotation

Hazards

Hazards include, but are not limited to, one or more of:

- electric shock
- chemicals, such as acids and hydrocarbons
- microbiological organisms associated with blood and blood products
- radioisotopes
- sharps, such as broken glassware
- disturbance or interruption of services
- manual handling of heavy boxes
- fluids under pressure and industrial gas bottles

Safety procedures

Safety procedures include:

- use of personal protective equipment (PPE), such as hearing protection, gloves, safety glasses, coveralls and safety boots
- ensuring access to service shut-off points
- handling and storing hazardous materials and equipment in accordance with labels, MSDS, manufacturer's instructions, and workplace procedures and regulations
- regular cleaning of equipment and work areas

WHS and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be

compromised at any time

- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL934003A Maintain and control stocks

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL934003 Maintain and control stocks

Modification History

Release 1. Supersedes and is equivalent to MSL934003A Maintain and control stocks

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- accessing online databases and/or catalogues efficiently
- following workplace procedures for predicting and/or determining demand for stock; and researching, ordering and receiving stock, materials and equipment
- maintaining stocks of materials and equipment at prescribed levels for the work area, through regular inspections, timely ordering of replacement items and follow-up of late orders
- performing quality control sampling and testing and rotating stock in accordance with workplace procedures
- managing peak and seasonal variations in stock usage and production conditions
- interpreting labelling information (lot number, batch and date) and material safety data sheets (MSDS) correctly
- applying procedures for safe (manual) handling, storage and transport of stocks
- completing and recording all stock records and documentation accurately
- demonstrating effective communication and interpersonal skills when dealing with customers and suppliers.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- terminology associated with ordering and storage of stocks
- laboratory stock, product and service information relevant to job role
- types of hazardous chemical reactions and the rationale for recommended storage systems
- workplace procedures and quality system requirements for stock control
- codes of practice and regulations concerning the labelling, handling, storage and transport of stock relevant to job role
- relevant hazards, work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.

- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL935004 Maintain instruments and equipment
- Holistic assessment methods include:
 - review of documentation for orders prepared by the candidate
 - examination of stock records maintained by the candidate
 - feedback from the laboratory manager, quality manager, customer service manager, supervisor, customers and peers
 - oral or written questioning to check knowledge of the maintenance and control requirements for a selection of stock
 - observation of the candidate handling stock and conducting quality control sampling and testing.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - stocks of materials and equipment
 - stock order forms and documentation
 - sampling and testing equipment
 - online information systems, inventories, print records, databases and catalogues
 - codes of practice and regulations concerning the handling, storage and transport of the stock.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

MSL973007 Perform microscopic examination

Modification History

Release 1. Supersedes and is equivalent to MSL973007A Perform microscopic examination

Application

This unit of competency covers the ability to set up a light microscope for optimum resolution, to prepare routine samples and to observe, identify and report sample characteristics.

This unit of competency is applicable to laboratory or technical assistants in all industry sectors. The unit of competency covers limited interpretation and analysis of results. Troubleshooting of equipment and procedures is not required.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Testing

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | |
|--------------------------------------|--|
| 1 Interpret test requirements | 1.1 Review test request to identify samples to be tested, test method and equipment involved |
| | 1.2 Identify hazards associated with the sample, preparation methods and equipment, and implement workplace control measures |

- | | | | |
|---|--|-----|---|
| 2 | Set up work area for preparation and examination of samples | 2.1 | Collect equipment and arrange the workspace so that equipment can be used safely and efficiently |
| | | 2.2 | Perform pre-use and safety checks to ensure equipment is fit for purpose and report faulty or unsafe equipment to appropriate personnel |
| | | | |
| 3 | Prepare samples for examination | 3.1 | Log and label samples according to workplace procedures to ensure traceability |
| | | 3.2 | Check suitability of the original and prepared sample for the examination, and report unsuitable samples to appropriate personnel |
| | | 3.3 | Prepare and store the sample for examination following workplace methods |
| | | | |
| 4 | Set up and use a light microscope | 4.1 | Set up the light path to optimise resolution |
| | | 4.2 | Select the appropriate objectives and filter for the sample being examined |
| | | 4.3 | Ensure that the lenses are clean |
| | | 4.4 | Adjust settings and alignment of the light path to optimise performance |
| | | 4.5 | Place sample correctly on the stage |
| | | | |
| 5 | Observe, identify and report sample characteristics | 5.1 | Recognise and identify significant sample characteristics |
| | | 5.2 | Perform required calculations accurately |
| | | 5.3 | Prepare and view control samples and check that results are consistent with expected values |
| | | 5.4 | Identify and report out-of-specification or atypical results promptly to appropriate personnel |
| | | 5.5 | Record and report data in accordance with workplace procedures |

- | | | | |
|---|---|-----|---|
| 6 | Maintain a safe work environment | 6.1 | Ensure safety and minimise cross-contamination through the use of personal protective equipment (PPE) |
| | | 6.2 | Handle all samples and equipment in accordance with workplace safety protocols |
| | | 6.3 | Clean up spills using appropriate techniques to protect personnel, work area and environment |
| | | 6.4 | Minimise generation of waste and environmental impacts |
| | | 6.5 | Collect and dispose of all wastes safely |
| | | 6.6 | Report hazards and incidents to designated personnel using workplace procedures |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the competence of testing and calibration laboratories, laboratory safety and quality management
- national work health and safety (WHS) standards and codes of practice, and national measurement regulations and guidelines
- specific codes, guidelines and procedures, such as National Association of Testing Authorities (NATA) accreditation requirements, principles of good laboratory practice (GLP), and Australian code of good manufacturing practice for medicinal

products (GMP)

- workplace documents, such as standard operating procedures (SOPs); quality and equipment manuals; calibration and maintenance schedules; material safety data sheets (MSDS) and safety procedures; material, production and product specifications; production and laboratory schedules; workplace recording and reporting procedures; and waste minimisation and safe disposal procedures
- workplace procedures for microscopic examination of samples

Preparation of samples

Preparation of samples includes, but is not limited to, one or more of:

- drying and cooling
- physical separation, centrifugation, filtration and chemical separation
- sub-sampling
- labelling
- aseptic transfer of specimen
- thin film or smear on a slide
- fixing of films to minimise cell damage and the production of artefacts
- staining of fixed material to illustrate required characteristics
- mounting of stained films, sections and whole mounts to ensure long-term preservation
- permanent labels for smears, films and sections for presentation, storage and retrieval
- selection of diluent to preserve or enhance visibility of the cells to be counted
- serial dilution to enable individual cells to be reliably counted
- filling a counting chamber in one continuous flow without bubbles or overflow
- selection, filling and cover slipping of a clean, dry counting chamber to ensure even distribution of cells during filling

Biological samples

Biological samples include, but are not limited to, one or more of:

- smears, impression smears, sections, squashes, films and whole mounts
- a monolayer of cells in smears and films
- fixed smears for demonstration of bacteria by the methylene blue and Gram staining techniques
- blood films stained by a Romanowsky technique to clearly show differentiation of granulocytes
- stained sections of animal tissues using regressive haematoxylin

- and eosin to differentiate cytoplasmic and nuclear detail
- differentially stained monocotyledon and dicotyledon stem sections to demonstrate the structure of vascular bundles (xylem, phloem and cambium)
 - stained whole mounts of helminths
 - whole mounts, such as liver flukes, planaria and samples of animal faeces to demonstrate ova, cysts and larvae
 - pond water organisms
 - onion root tip squash
 - midstream sample of urine

Physical samples

Physical samples include, but are not limited to, one or more of:

- sand
- asbestos fibres
- coal samples
- construction materials for testing
- geological specimens

Sample characteristics

Sample characteristics are restricted to what can be viewed by bright light microscopy and include, but are not limited to, one or more of:

- shape and size of particles
- presence of contamination
- colour
- consistency and variability
- number of cells (e.g. cells in blood or other particulate samples, such as a yeast suspension or pollen grains)
- type of cells, percentage of atypical cells, presence/absence of cells, size of cells, viable and non-viable cells and trajectory
- presence of stained material, such as starch
- colour/staining and morphology
- motility

Workplace safety procedures

Workplace safety procedures include, but are not limited to, one or more of:

- ergonomic layout, correct illumination and organisation of workbench
- use of biohazard containers and laminar flow cabinet
- correctly labelling reagents and hazardous materials
- use of PPE, such as safety glasses, gloves and coveralls
- handling and storing hazardous materials and equipment in

- accordance with labels, MSDS and manufacturer instructions
- regularly cleaning and decontaminating equipment and work areas

WHS and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL973007A Perform microscopic examination

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL973007 Perform microscopic examination

Modification History

Release 1. Supersedes and is equivalent to MSL973007A Perform microscopic examination

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- safely performing microscopic examination of at least three (3) different samples and correctly identifying and reporting the characteristics of each
- checking suitability of samples, such as labelling, spillage, spoilage due to incorrect storage and transport conditions, temperature control and suitability for the examination
- safely preparing routine biological and/or physical samples in accordance with workplace procedures or standard methods
- checking the quality of prepared samples, such as:
 - clean and scratch-free microscope slides to reduce artefacts
 - preparation according to specified procedure/method
 - homogeneous suspension of sample
 - films and smears that have been fixed rapidly
 - thin films with a monolayer of cells
 - appropriate whole mounts for intact organisms
 - correct sample identification during and after processing
- performing pre-use checks of equipment, such as calibration, routine cleaning and maintenance, and use by dates of reagents
- setting up a light microscope for optimal resolution
- accurately observing, identifying and reporting sample characteristics
- performing counts on samples and basic measurements using grids
- performing accurate calculations as required by the method, such as:
 - dilutions
 - percentage viability
 - number of cells in original sample after dilution
 - calculation of cells/ml in a number of squares of a counting chamber
- interpreting and recording test results reliably
- logging and tracking samples through all steps from sample receipt to completion of the examination and reporting
- minimising cross-contamination and contamination of the laboratory and environment
- using personal protective equipment (PPE) and safety procedures to maintain personal safety and that of others

- handling/storing samples and equipment and collecting/disposing of waste in accordance with workplace procedures.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- nature of samples, sample preparation methods, methods of examination and associated hazards
- parts and functions of a light microscope and steps taken to optimise the resolution of images
- importance and appropriate use of controls and certified reference materials
- workplace and/or legal traceability requirements
- relevant work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL922001 Record and present data
 - MSL933002 Contribute to the achievement of quality objectives
 - MSL943002 Participate in laboratory or field workplace safety
 - MSL953001 Receive and prepare samples for testing
- Holistic assessment methods include:
 - review of data records prepared by the candidate, such as counts, observations and results
 - feedback from supervisors and peers about adherence to workplace procedures and sample preparation/examination methods
 - observation of the candidate performing microscopic examinations
 - oral/written questions about workplace procedures covering safe preparation and examination of samples.

- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - a standard laboratory equipped with appropriate equipment, including light microscopes and samples
 - workplace procedures, standard methods and materials
 - equipment, such as glass slides, counting chambers (e.g. haemocytometer), optical graticules and stage micrometers, and tissue culture flasks
 - a light microscope, such as:
 - bright field illumination microscope up to 1000 x magnification
 - stereomicroscopes and dissection microscopes
 - compound microscope
 - phase contrast microscope
 - inverted microscope.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

MSL975017 Perform laboratory-based ecological techniques

Modification History

Release 1. Supersedes and is equivalent to MSL975017A Perform laboratory-based ecological techniques

Application

This unit of competency covers the ability to participate in laboratory investigations involving animals, plants and related environmental parameters. The animals or plants might be single specimens, parts of specimens or be in culture or under propagation. The investigations might also be part of experimental models that examine interactions of animals and/or plants and their environments. Investigations would generally relate to taxonomy, physiology and pathology, and would be oriented to scientific research, food production and manufacture, and to investigation of biological environments and ecosystems.

This unit of competency is applicable to laboratory technicians and technical officers working in biological, biotechnology and environmental industry sectors. It is expected that all work would conform to statutory and work health and safety (WHS) codes of practice. This unit of competency assumes that personnel perform tests and procedures under the close supervision of scientific staff and that the workplace will equip its workers with relevant animal handling skills should they be required. The unit does not cover procedures related to the handling of vertebrates that are subject to national and state/territory animal care and ethics regulations.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

MSL974006 Perform biological procedures

Competency Field

Testing

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|---|---|---|
| 1 | Process specimens and documentation | <p>1.1 Check specimens and request forms for labelling and documentation before acceptance</p> <p>1.2 Log specimens, applying required document tracking mechanisms</p> <p>1.3 Dispatch specimens to referral laboratories as required</p> <p>1.4 Store specimens appropriately until required for testing</p> |
| 2 | Participate in the identification and classification of species | <p>2.1 Record macroscopic and/or microscopic details of specimens to assist in their identification and classification</p> <p>2.2 Use taxonomic keys to assist in the identification and classification of species</p> <p>2.3 Perform laboratory analyses that can assist in identification and classification of species</p> <p>2.4 Preserve specimens for future reference</p> <p>2.5 Label preserved specimens for storage and reliable retrieval from collections</p> |
| 3 | Maintain viability and integrity of specimens during experimentation | <p>3.1 Provide nutrients and environments to maintain viability of individual specimens and organisms being cultured or propagated</p> <p>3.2 Perform procedures and analyses to monitor the experimental environment</p> <p>3.3 Perform procedures and analyses to monitor the physiology of organisms in the experimental environment</p> <p>3.4 Adjust nutrient requirements and environmental conditions as indicated by monitoring data</p> |

- | | | | |
|---|--|-----|--|
| | | 3.5 | Report to supervisors data and phenomena that may risk viability of individual specimens or cultures |
| | | 3.6 | Report to supervisors data and phenomena that are incompatible with the experimental design parameters |
| 4 | Integrate laboratory and field data | 4.1 | Locate field data relevant to the study or experiment |
| | | 4.2 | Ensure that field and laboratory data codes are matched for tracking, reporting and chain of custody requirements |
| | | 4.3 | Log field and laboratory data into information systems |
| | | 4.4 | Assist with writing reports of experiments and related field studies |
| 5 | Maintain a safe work environment | 5.1 | Use established safe work practices and personal protective equipment (PPE) to ensure personal safety and that of other laboratory personnel |
| | | 5.2 | Minimise the generation of waste and environmental impacts |
| | | 5.3 | Ensure the safe collection of laboratory and hazardous waste for subsequent disposal |
| | | 5.4 | Care for and store equipment and reagents as required |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of

the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the competence of testing and calibration laboratories, laboratory safety and quality management
- national WHS standards and codes of practice, and national environmental protection requirements
- specific codes, guidelines, procedures and methods, such as animal welfare legislation and codes of practice, guide to physical containment levels and facility types, and Australian Quarantine and Inspection Service (AQIS) Export Control (Orders) Regulations
- workplace documents, such as standard operating procedures (SOPs), quality and equipment manuals, calibration and maintenance schedules, material safety data sheets (MSDS) and safety procedures, safety procedures to minimise contraction of zoonoses, laboratory schedules, workplace recording and reporting procedures, waste minimisation disposal protocols and environment protection procedures
- workplace procedures for labelling, preparation, storage, transport and disposal of samples and specimens
- validated and authorised test procedures

Communication

Communication includes interactions with one or more of:

- scientists
- field workers
- local government professionals or representatives of state/territory authorities, such as environmental protection agencies
- supervisors and managers (laboratory, quality and customer service)
- clients

Disposal of biohazardous wastes

Disposal of biohazardous wastes includes, but is not limited to, one or more of:

- collection for sterilisation by autoclaving (e.g. autoclaving of microbiological plates)
- appropriate storage (e.g. of waste containing radioactive isotopes)
- use of biohazard waste containers

Safe work practices

Safe work practices include, but are not limited to, one or more of:

- ensuring access to service shut-off points
- recognising and observing hazard warnings and safety signs
- labelling of samples, reagents, aliquoted samples and hazardous materials
- handling and storage of hazardous materials and equipment in accordance with labelling, material safety data sheets (MSDS) and manufacturer instructions
- identifying and reporting operating problems or equipment malfunctions
- cleaning and decontaminating equipment and work areas regularly using workplace procedures
- using PPE, such as gloves, safety glasses, coveralls, gowns, hearing protection and safety boots
- using containment facilities (PCII, PCIII and PCIV physical containment laboratories), containment equipment (biohazard containers, laminar flow cabinets, Class I, II and III biohazard cabinets) and containment procedures
- following established manual handling procedures
- reporting abnormal emissions, discharges and airborne contaminants, such as noise, light, solids, liquids, water/wastewater, gases, smoke, vapour, fumes, odour and particulates, to appropriate personnel

WHS and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL975017A Perform laboratory-based ecological techniques

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL975017 Perform laboratory-based ecological techniques

Modification History

Release 1. Supersedes and is equivalent to MSL975017A Perform laboratory-based ecological techniques

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- identifying and classifying at least five (5) different animal and plant species for scientific and experimental purposes
- processing, labelling, preserving and storing at least five (5) different kinds of specimens
- performing procedures and analyses to monitor the physiology of organisms/specimens in the experimental environment and maintain their viability on at least three (3) occasions
- taking representative samples for analysis
- not contaminating sterile environments or specimens
- integrating field and laboratory data to provide meaningful results in support of laboratory investigations
- using appropriate scientific terminology and technical concepts to report data and phenomena that may risk viability of individual specimens or cultures or are incompatible with the experimental design parameters
- safely collecting, storing and disposing of waste and minimising contamination of the environment
- following workplace safety procedures.

Knowledge Evidence

- Must provide evidence that demonstrates knowledge of:
- growth requirements of organisms that are subjects of laboratory or greenhouse culture or propagation relevant to job role
- general anatomy of plants and animals that is useful as classification data
- processes that are essential for preservation of plant and animal material for use as reference material
- relationships between field and laboratory data that are useful in giving commentary on the integrity or distress in biological environments
- rationale for selection of techniques used to monitor the experimental environment and the effects of variables on organisms in the experimental environment
- uses of environmental impact statements that incorporate the results of field and laboratory analyses
- workplace and/or legal traceability requirements

relevant hazards, work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgment of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL925001 Analyse data and report results
 - MSL974007 Undertake environmental field-based monitoring
- Holistic assessment methods include:
 - review of data and results obtained by the candidate over time to ensure accuracy and consistency
 - inspection of records and workplace documentation completed by the candidate
 - feedback from supervisors or clients about the candidate's ability to perform laboratory-based ecological techniques in support of laboratory investigations involving animals, plants and related environmental parameters
 - observation of the candidate processing specimens and conducting analyses
 - questioning about procedures that form part of experiments relevant to job role
 - review of the candidate's responses to case studies/scenarios, such as:
 - relating field and laboratory data in an environmental impact statement
 - preservation of plant species and placement in a herbarium
 - plant propagation in a variety of controlled environments
 - maintenance of cultures of protozoans or invertebrates.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - equipment and resources for investigating the physiology of plants and animals in the laboratory
 - workplace procedures, sampling plans, test methods and equipment manuals
 - computers and programs for simulated experiments or data analysis

- items of equipment, reagents, specimens and systems for botanical and zoological techniques
- laboratory information management systems (LIMS), databases, record and filing systems, including specimen accessioning.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.
-

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

NWP203B Plan and organise personal work activities

Modification History

NWP203B Release 2: Layout adjusted. No changes to content.

NWP203B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to plan and organise personal work activities to meet specified outcomes, including identifying and using resources and equipment and applying customer service policies.

Application of the Unit

This unit supports the attainment of skills and knowledge required for field and operational staff who work under supervision but who are required to exercise responsibility for their own effective work performance.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit of competency contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where *bold italicised* text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Plan and conduct assigned work activities.	1.1 Identify work activities and relevant <i>legislation and organisational procedures</i> . 1.2 Organise and <i>plan work activities</i> to achieve agreed outcomes. 1.3 Identify and obtain resources to complete planned work activities.
2 Monitor quality of work.	2.1 Interpret and check instructions against relevant organisational standards of work. 2.2 Seek clarification of work instructions as required. 2.3 Monitor and adjust work according to requirements for job quality, customer service, public responsibility and resource use.
3 Provide and obtain feedback and information on work activities.	3.1 <i>Record and report</i> work activities according to organisational requirements. 3.2 Access appropriate avenues to provide suggestions for improvement to personal work performance.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- prepare, identify and respond to operational problems
- complete basic reports, records and logs
- follow work instructions
- follow policies, procedures and standards
- work effectively as part of a team
- use literacy skills in regard to verbal and written communication in the workplace
- communicate such things as work requirements effectively
- assertiveness
- time management

Required knowledge:

- organisational reporting and communication systems
- work planning processes
- legislative and organisational policies, procedures and standards
- administrative procedures
- quality systems
- organisational procedures for contractors
- reporting procedures

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to plan and organise personal work activities to meet specified outcomes, including:

- identifying and using resources and equipment
- applying customer service policies
- identifying, prioritising and planning work tasks
- identifying and applying appropriate quality standards
- monitoring work performance and seeking feedback

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation
- relevant codes, standards and government regulations

Where applicable, physical resources should include equipment modified for people with disabilities.

Access must be provided to appropriate learning and assessment support when required.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
- a decision of competence only taken at the point when the assessor has complete confidence in the person's competence over time and in various contexts
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence
- where assessment is for the purpose of recognition (RCC/RPL), the evidence provided will need to be

authenticated and show that it represents competency demonstrated over a period of time

- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the skill levels of the operator and cultural issues that may affect responses to the questions, and will reflect the requirements of the competency and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the performance criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Legislation and organisational procedures include:

- by-laws and organisational policies
- standard operating procedures
- equal employment opportunity
- OHS

Plan work activities will require:

- interpretation of instructions and directions
- assessment and prioritisation of workload
- adherence to timelines
- interaction and communication with team members and individuals
- interpretation of legislation and organisational procedures
- reference to:
 - productivity requirements
 - total quality management principles
 - customer service requirements

Record and report information relating to work activities, including:

- completion of time sheets
- requisitions
- work sheets and job cards
- basic workplace records and verbal or written reports

Unit Sector(s)

Not applicable.

Competency field

Common

NWP209B Use maps, plans, drawings and specifications

Modification History

NWP209B Release 2: Layout adjusted. No changes to content.

NWP209B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to read and interpret maps, plans, drawings and specifications.

Application of the Unit

This unit supports the attainment of skills and knowledge required for field and operational staff involved in the location, construction and maintenance or repair of assets, such as plants, pump stations and infrastructure.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit of competency contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Interpret maps, plans and drawings.	1.1 Identify main <i>types of maps, plans, drawings and specifications</i> used to support work tasks. 1.2 Identify parts of water systems and their interrelationship on a range of drawing types. 1.3 Interpret commonly used symbols and abbreviations. 1.4 Interpret function of the legend. 1.5 Verify latest version of map, plan or drawing.
2 Use maps and site plans to support work activities.	2.1 Apply organisation's <i>system for managing maps and plans</i> . 2.2 Apply relevant <i>technologies</i> used to gather, record and monitor, map and plan data. 2.3 Identify function and <i>key features of maps and site plans</i> in the planning of work. 2.4 Identify <i>orientation of the site</i> . 2.5 Identify and isolate access from roadways to work site. 2.6 Determine materials and distances from plans and drawings.
3 Read and interpret specifications.	3.1 Relate specifications to particular maps and plans and identify quality standards. 3.2 Identify and determine types of details from works specifications.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- read and interpret maps, plans, drawings and specifications
- measure accurately
- communicate effectively
- work effectively as part of a team
- use literacy skills in regard to verbal and written communication in the workplace
- use information provided in maps, plans and drawings to complete a job and in different work situations

Required knowledge:

- measurements and calculations
- contours
- datum points
- planes

- gradients
- sections
- orthographic projection
- symbols
- dimensions
- terminology

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to read and interpret maps, plans, drawings and specifications including:

- locating correct maps, plans, drawings and specifications for work tasks
- interpreting correctly all relevant information in maps, plans, drawings and specifications to enable the work to be performed correctly, effectively and according to organisational quality standards

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation
- relevant codes, standards and government regulations

Where applicable, physical resources should include equipment modified for people with disabilities.

Access must be provided to appropriate learning and assessment support when required.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
- a decision of competence only taken at the point when the

assessor has complete confidence in the person's competence over time and in various contexts

- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence
- where assessment is for the purpose of recognition (RCC/RPL), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time
- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the skill levels of the operator and cultural issues that may affect responses to the questions, and will reflect the requirements of the competency and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the performance criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Types of maps, plans, drawings and specifications may include:

- urban and rural topographical maps
- site plans and elevations
- process flow sheets
- survey plans
- sectional plans and elevations
- channel drainage plans
- pipe system plans
- location of assets plans
- details and specifications providing illustrations and dimensions

System for managing maps and plans used within organisation may be:

- geographic information systems
- electronic plans management systems
- manual systems
- hard copy systems

Technologies used to gather,

- vary across organisations

record and monitor map and plan data may:

Key features of maps and site plans will include combinations of:

- include use of global positioning system (GPS) technology and require the use of portable navigation devices by operators
- shape and orientation of site
- roads
- railways
- easements
- existing buildings and structures
- services, including:
 - drainage
 - sewerage
 - gas
 - water
 - electricity and telecommunications
- dimensions
- grades of pipelines and channels
- tree preservation orders
- geographical features
- power and transmission lines
- heritage and cultural features
- types of structure, including:
 - buildings
 - bridges
 - fabricated towers
 - fences
 - pipelines
 - regulators
 - poles
- environmental barriers
- environmental features, including:
 - fauna and flora habitats
 - cultural features
 - heritage features
 - water catchments
- shape of structure and building
- service requirements
- location of plant and equipment
- vertical and horizontal measurements
- clearance distance
- geological features
- service layouts

Orientation of the site may include:

- bore and casing details
- relationship to north
- currency of plan
- relationship between plan and site

Unit Sector(s)

Not applicable.

Competency field

Common.

NWP210B Perform basic water quality tests

Modification History

NWP210B Release 2: Layout adjusted. No changes to content.

NWP210B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to perform basic water quality tests.

Application of the Unit

This unit supports the attainment of skills and knowledge required for field and operational staff with responsibility for preparing for, conducting and reporting on basic water quality tests in general water industry and water treatment operations.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit of competency contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare for basic water quality tests.	<p>1.1 Receive instructions for conducting and recording <i>basic water quality tests</i> and confirm with appropriate personnel.</p> <p>1.2 Confirm <i>testing details</i> and <i>plan testing work</i> according to <i>legislative and organisational requirements</i>.</p> <p>1.3 Select, fit and use personal protective equipment specified for routine water tests.</p> <p>1.4 Prepare and check <i>testing equipment</i> according to organisational requirements.</p>
2 Conduct basic water quality tests.	<p>2.1 Identify and check correct samples for testing and report <i>abnormal sample characteristics</i>.</p> <p>2.2 Conduct basic water quality tests according to organisational requirements.</p> <p>2.3 <i>Maintain integrity of samples</i> during testing.</p> <p>2.4 Identify <i>atypical data</i> and take appropriate action.</p>
3 Finalise work.	<p>3.1 Record relevant <i>information</i> according to organisational requirements.</p> <p>3.2 Dispose of samples and clean and store test equipment according to organisational procedures.</p> <p>3.3 Clear and restore work area according to organisational requirements.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- conduct basic water quality tests
- calibrate testing equipment
- operate testing equipment
- conduct sub-sampling
- dispose of samples and waste
- communicate effectively
- produce reports and logs
- perform relevant work-related calculations
- work effectively as part of a team
- use literacy skills in regard to verbal and written communication in the workplace
- interpret work requirements

Required knowledge:

- range and purpose of basic water quality testing
- test procedures
- abnormal characteristics of water samples
- atypical test result data
- relevant work-related calculations
- maintenance and storage of reagents
- requirements for maintaining sample integrity
- documentation procedures for test results
- sample and waste disposal procedures
- relevant legislative and organisational requirements

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to perform basic water quality tests by:

- interpreting testing requirements and procedures
- preparing, checking and using equipment correctly
- conducting at least three different types of test safely while maintaining the integrity of samples
- recording all relevant information

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation
- relevant codes, standards and government regulations

Where applicable, physical resources should include equipment modified for people with disabilities.

Access must be provided to appropriate learning and assessment support when required.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical

requirements of the workplace

- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
- a decision of competence should only be made when the assessor has complete confidence in the person's competence over time and in various contexts
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence
- where assessment is for the purpose of recognition (RCC/RPL), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time
- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the skill levels of the operator and cultural issues that may affect responses to the questions, and will reflect the requirements of the competency and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the performance criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Basic water quality tests include:

- range of tests required for competent performance of work tasks in the organisational context
- should comprise at least three of the following types of test:
 - pH
 - temperature
 - electrical conductivity
 - microscopy
 - turbidity

- colour
 - chlorine residual
 - jar testing
 - hardness
 - dissolved oxygen
- Testing details** may include:
- locations, including:
 - on-site testing
 - field-based testing
 - laboratory
 - range of testing procedures and techniques that apply to organisational, plant or field sites
 - variety of samples to be tested
 - testing equipment to be used
 - test reporting systems
- Plan testing work** may include:
- interpretation of instructions and directions
 - timelines
 - interaction and communication with team members and individuals
 - interpretation of legislative and organisational requirements
- Legislative and organisational requirements** may include:
- relevant federal and state or territory legislation and regulations
 - codes of practice, associated standards and guidance material
 - documented organisational policies, manuals and induction programs
 - relevant community planning and development agreements, such as land care agreements
- Testing equipment** may include:
- portable meters, such as:
 - pH meters
 - electrical conductivity meter
 - thermistors
 - comparators
 - pocket colorimeters
 - dissolved oxygen meters
 - test kits
 - microscopes
 - thermometers
- Abnormal sample characteristics** may include:
- insufficient sample volume
 - odour
 - visible contaminants, such as:

- scum
 - debris
 - discolouration
- Maintaining integrity of samples*** may include:
- application of correct:
 - holding time
 - storage procedures
 - sub-sampling procedures
- Atypical data*** may include:
- results that fall outside organisational range requirements
 - results that fall outside legislated range requirements
- Information*** may include:
- time and logging of sample receipt and testing
 - visual observations
 - equipment identification
 - atypical results
 - test results

Unit Sector(s)

Not applicable.

Competency field

Common.

NWP215B Install and replace basic volumetric metering equipment

Modification History

NWP215B Release 2: Layout adjusted. No changes to content.

NWP215B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to install and replace basic volumetric metering equipment for domestic, industrial and commercial premises. The unit also includes the identification of defects and the reporting, replacement and adjustment of metering equipment.

Application of the Unit

This unit supports the attainment of skills and knowledge required for staff responsible for the effective and accurate operation of water metering equipment as a vital component of service delivery and compliance reporting.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit of competency contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Plan and prepare to install or replace basic volumetric metering equipment.	<p>1.1 Determine work requirements and work site boundaries from specifications or instructions.</p> <p>1.2 Plan work according to job and <i>safety requirements</i> using relevant plans, drawings, standards and technical data.</p> <p>1.3 Select and use electrical safety equipment according to <i>legislative and organisational requirements</i>.</p> <p>1.4 Check coordination issues, including permission to access third-party sites, isolations and permits to work with relevant personnel.</p> <p>1.5 Identify, check and prepare materials, equipment and resources required to satisfy job plan according to organisational requirements.</p> <p>1.6 Identify <i>basic metering equipment</i> and recognise specifications for operation.</p> <p>1.7 Select, fit and use personal protective equipment.</p>
2 Read metering equipment.	<p>2.1 Read meters according to the organisation's operational requirements.</p> <p>2.2 Report readings outside normal parameters and faulty meters and apply organisational procedures for estimating consumption.</p> <p>2.3 Collect and report information on performance metering equipment according to organisational requirements.</p>
3 Finalise work and complete documentation.	<p>3.1 Check, maintain and store equipment, tools and materials according to manufacturer guidelines and organisational requirements.</p> <p>3.2 Restore work site to meet environmental and organisational requirements.</p> <p>3.3 Maintain compliance reports and relevant workplace records as required.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- identify and respond to operational problems
- produce reports and logs

- operate communications equipment
- give and receive instructions
- follow plans, charts and instructions
- perform work-related calculations
- use safety equipment and personal protective equipment
- communicate with customers and other employees
- work effectively as part of a team
- use literacy skills in regard to verbal and written communication in the workplace
- secure metering devices

Required knowledge:

- relevant utilities and service bodies
- organisation's communication systems
- materials handling
- environmental, landscape and ground structure of water and wastewater systems
- risk factors and potential hazards involved with water systems
- equipment operation, capacity and limitations
- effects of weather and conditions on site
- meter types
- equipment placement and operation
- metering measurement procedures
- data collection and recording system
- lock-out procedures for mechanical and electrical installations

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to install and replace basic volumetric metering equipment for domestic, industrial and commercial premises including:

- planning and preparing for installation or replacement of basic volumetric metering equipment
- installing or replacing meters
- reading meters and report faults
- completing reports

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation

- relevant codes, standards and government regulations

Where applicable, physical resources should include equipment modified for people with disabilities.

Access must be provided to appropriate learning and assessment support when required.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
- the assessor has complete confidence in the person's competence over time and in various contexts
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence
- where assessment is for the purpose of recognition (RCC/RPL), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time
- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the skill levels of the operator and cultural issues that may affect responses to the questions, and will reflect the requirements of the competency and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the performance criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of

the candidate, accessibility of the item, and local industry and regional contexts.

Safety requirements to be considered in planning work include:

- where relevant, meeting requirements to work in confined spaces and at heights
- use of appropriate personal protective equipment
- organisational electrical safety procedures
- adherence to OHS policies, and statutory and regulatory requirements

Legislative and organisational requirements may include:

- relevant federal and state or territory legislation and regulations
- codes of practice, associated standards and guidance material
- documented organisational policies, manuals and induction programs
- relevant community planning and development agreements, such as land care agreements

Basic metering equipment may include:

- domestic
- industrial
- commercial
- volumetric metering equipment

Unit Sector(s)

Not applicable.

Competency field

Collection and distribution.

NWP410C Coordinate and monitor asset construction and maintenance

Modification History

NWP410C Release 2: Layout adjusted. No changes to content.

NWP410C Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to coordinate and monitor asset construction and maintenance, including site management and associated commissioning and post-commissioning activities.

Application of the Unit

This unit is required by operators with responsibility for ensuring that asset construction and maintenance activities are performed and completed in compliance with all relevant organisational and statutory requirements. The level of responsibility may vary according to the size, scope, location, and technical complexity of individual projects.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Plan and prepare for asset construction and maintenance.	<p>1.1 Determine <i>work requirements</i> according to asset purpose, maintenance history, components, maintenance schedules and known logistics.</p> <p>1.2 Confirm maintenance plan and prioritise and schedule work.</p> <p>1.3 Confirm <i>authorisations</i> and communication with stakeholders.</p> <p>1.4 Identify and address <i>stakeholders</i> issues that impact on construction or maintenance.</p> <p>1.5 Conduct <i>site inspections</i> according to organisational procedures and risk management guidelines.</p>
2 Undertake work site maintenance.	<p>2.1 Monitor material handling procedures according to organisational requirements.</p> <p>2.2 Monitor construction activities to ensure compliance with <i>occupational health and safety and environmental regulations</i>.</p> <p>2.3 Confirm maintenance requirements by detailed diagnosis of problems and conditions at the site.</p> <p>2.4 Carry out <i>maintenance tasks</i> according to the condition of the equipment and organisational requirements.</p> <p>2.5 Use equipment, tools and technology safely, effectively and productively.</p>
3 Test and commission work.	<p>3.1 Conduct tests and apply defined commissioning programs according to <i>organisational and manufacturers' requirements</i>.</p> <p>3.2 Monitor test results to ensure that the assets function within agreed specifications.</p> <p>3.3 Conduct and record inspections according to commissioning and stakeholders requirements.</p>
4 Conduct post-maintenance activities.	<p>4.1 Coordinate and monitor work site inspections and rehabilitation.</p> <p>4.2 Undertake a review of the construction or installation and monitor asset performance.</p> <p>4.3 Identify defects and make arrangements to rectify them.</p> <p>4.4 Complete reports and documentation required by the organisation.</p> <p>4.5 Store and secure reports according to information and data management system.</p>

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills:

- interpret and make adjustments to asset maintenance plan
- monitor work progress against a plan
- apply relevant organisational procedures based on legislation, risk management, manufacturers guidelines, site conditions and quality standards
- conduct site inspections and investigations
- communicate with supervisors, team members, contractors and the public using clear and direct communication
- prepare reports for management on asset monitoring and maintenance in organisation proformas
- interpret and apply a range of organisation documents
- liaise and negotiate with local and internal stakeholders
- detect and solve operational problems within area of authority and delegation
- work within safety requirements, identify hazards and use equipment and processes safely
- use safety and personal protective equipment
- interpret policies, standard operating procedures and standards related to monitoring and maintenance of water services assets
- control system operations, processes, failure and rectification
- use required forms of transport including marine craft, 4 wheel drive vehicles, aircraft, snow mobiles based on site location and conditions and safety and equipment management procedures
- use organisation equipment, tools and technology

Required knowledge:

- enterprise contract conditions and compliance
- site inspection and investigation procedures
- organisational policies, procedures, guidelines and requirements for asset monitoring and maintenance
- system layout, integrity, design and performance
- evaluation and investigation requirements
- enterprise auditing and recording procedures and reporting requirements
- characteristics, technical capabilities and limitations of materials and equipment according to manufacturers' specifications
- occupational health and safety policies and procedures including material handling procedures, use of protective equipment, safe driving in hazardous conditions, bush and water survival, working in the location of power supplies, working in confined spaces
- relevant environmental and natural resource management legislation
- risk factors and potential hazards involved with water pressures and flows

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to plan, coordinate and monitor the construction or maintenance of water industry assets, including:

- analysing work requirements
- prioritising and scheduling work
- liaising and negotiating with all relevant stakeholders and work teams
- planning construction or maintenance activities
- monitoring work performance for compliance with OHS and other organisational and statutory requirements
- providing technical advice on maintenance methods
- conducting risk and hazard assessments
- reporting recommendations for risk and hazard prevention
- conducting or supervising asset tests
- implementing commissioning programs and post commissioning inspections
- coordinating and monitoring the rehabilitation of the worksite
- reviewing the construction or installation and monitoring performance
- identifying and reporting defects

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation
- relevant codes, standards, and government regulations

Where applicable, physical resources should include equipment modified for people with disabilities.

Access must be provided to appropriate learning and/or assessment support when required.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical

requirements of the workplace

- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
- a decision of competence should only be made when the assessor has complete confidence in the person's competence over time and in various contexts
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence
- where assessment is for the purpose of recognition (RCC/RPL), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time
- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the skill levels of the operator, any cultural issues that may affect responses to the questions, and reflecting the requirements of the competency and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Work requirements will include the organisation and site specific requirements including:

- purpose and history of site and its assets
- maintenance plans and specifications
- site location and conditions
- risk and hazard management procedures
- communication methods and equipment
- authorisations, permits and restrictions
- environmental and heritage conditions
- recording and reporting asset condition and maintenance
- preparing and coordinating the availability and transporting

of:

- maintenance and construction support
- equipment and tools
- replacement assets
- safety and protective equipment
- communication equipment
- technical expertise
- surveying equipment
- camping and survival resources
- rescue and retrieval resources
- federal, state and local government
- quarantine controls
- legal access
- traffic management
- Blue Card

Authorisations may include:

Stakeholders may include:

- contractors
- government and regulatory authorities
- property owners
- utility organisations
- specialised work teams
- general public
- asset users

Site inspections may include:

- confirmation of:
 - plans
 - contracts
 - purpose
 - asset history
 - fault reports
 - components
 - risk factors
- inspection of preparation work
- assessment of compliance with specifications and manufacturers' guidelines
- assessment of compliance with procedures and legislation including:
 - occupational health and safety requirements
 - environmental
 - natural resource management
 - water quality

Occupational health and safety and environmental

requirements will include:

- confined spaces
- heights
- water
- forests
- equipment operation
- plant operation
- contamination issues
- weather exposure
- herbicides
- pesticides
- solvents
- fuels
- PPE requirements
- onsite communication and procedures for working remotely.
- equipment:
 - ladders
 - harness
 - trailer
- personnel safety:
 - medical constraints and conditions
 - CPR
 - First Aid
 - water survival
 - bush survival
 - self rescue
 - traffic management authority

Maintenance tasks will be influenced by consideration of:

- performance benchmarks
- reference marks
- CTF
- relevant section:
 - control
 - approach
 - inlet
 - tailwater
 - DM
- long survey
- staff gauges
- peak level indicators
- power supplies
- instrument circuits

Organisational and manufacturers'

requirements may include:

- lightning protection
- banks
- site access
- transducer exposure
- general and special conditions of contract and site specifications
- plans, maps and drawings
- authorisations and permits
- operational manuals
- manufacturers' manuals and specifications
- maintenance manuals
- plans of other authorities, services and utilities
- hazard and response reports
- project plans
- maintenance checklists

Unit Sector(s)

Not applicable.

Competency field

Asset management.

NWP513B Develop and review catchment management plan

Modification History

NWP513B Release 2: Layout adjusted. No changes to content.

NWP513B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to develop and review catchment management plans that impact on water yield and/or quality.

Application of the Unit

This unit supports the attainment of skills and knowledge required for managers in water organisations with responsibility for the management of water catchments.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where **bold italicised** text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare for catchment management.	1.1 Identify and interpret <i>catchment management requirements</i> .
	1.2 Identify and evaluate <i>user and customer</i> requirements that impact on the catchment area.
	1.3 Gather <i>historical catchment information</i> and evaluate as input to the planning process.
	1.4 Identify, interpret and assess water quality and quantity requirements.
	1.5 Identify and interpret <i>environmental factors</i> and other relevant <i>issues</i> that impact on the catchment area.
2 Develop the catchment management plan.	2.1 Identify, interpret and validate <i>stakeholder</i> requirements that impact on the catchment area.
	2.2 Review and clarify organisational objectives and key performance indicators for the catchment management plan.
	2.3 Develop a catchment management plan.
3 Review and refine the catchment management plan.	3.1 Assess data from the ongoing implementation of the catchment management plan and use to inform the review of the plan.
	3.2 Review objectives of the management and implementation plans.
	3.3 Make recommendations for changes to objectives and implementation procedures.
	3.4 Provide advice and guidance to catchment area users and stakeholders.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- interpret and apply legislation and policies
- interpret and use measuring and testing activities
- conduct investigations
- assess environmental impacts
- use data to inform planning process
- communicate and consult with stakeholders

Required knowledge:

- water quality processes and parameters
- water management processes
- analysis of historical records
- relevant legislation
- relevant enterprise policies
- range of appropriate measuring and testing procedures
- risk management principles
- investigation procedures
- customer expectations and requirements
- occupational health and safety and environmental legislation
- Acts and procedures

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to develop and review catchment management plans that impact on water yield and quality including:

- gathering, interpreting and synthesising information (including historical data, current legislation and standards, stakeholder views and water quality test results) to underpin the sound development of the water catchment management plan
- consulting widely and effectively
- developing effective catchment management plans that address the water organisation's objectives and requirements
- using data from testing and other monitoring arrangements to track the performance of the catchment management plan and inform the review of the plan
- preparing reports and recommendations for changes to the objectives of the management plan and its implementation

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation
- relevant codes, standards, and government regulations

Where applicable, physical resources should include

equipment modified for people with disabilities.

Access must be provided to appropriate learning and/or assessment support when required.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
- a decision of competence should only be made when the assessor has complete confidence in the person's competence over time and in various contexts
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence
- where assessment is for the purpose of recognition (RCC/RPL), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time
- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the skill levels of the operator, any cultural issues that may affect responses to the questions, and reflecting the requirements of the competency and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the Performance Criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry

and regional contexts.

Catchment management requirements may include:

- relevant federal legislation
- relevant state or territory legislation
- relevant local government by-laws
- organisational needs
- codes of practice

User and customer stakeholders may include:

- recreational users of the catchment area
- forestry and land management authorities
- housing developers and home owners
- farmers
- traditional land owners
- consumers of water
- water authorities

Historical catchment information may include:

- relevant hydrometrical information
- previous monitoring studies
- previous risk assessments
- vegetation surveys
- anecdotal information from land holders
- geological data
- hydro-geological data

Environmental factors that impact on the catchment area may include:

- flora
- fauna
- chemicals
- land degradation
- nutrients
- fire breaks
- farming practices
- land use

Issues that impact on or relate to the catchment area may include:

- existence of known cultural sites
- land use patterns
- environmental issues
- other human activity

Stakeholder groups may include:

- state forestry bodies
- state parks authorities
- land care groups
- catchment management trusts and community groups
- environmental interest groups
- native title and indigenous groups
- state government
- local councils/shires
- water authorities

Unit Sector(s)

Not applicable.

Competency field

Collection and distribution.

NWP518B Prepare and report on data related to flood mitigation

Modification History

NWP518B Release 2: Layout adjusted. No changes to content.

NWP518B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to collect and analyse data associated with rainfall, run-off, flood estimation and reporting required for the development and communication of flood mitigation plans.

Application of the Unit

This unit supports the attainment of skills and knowledge required for planners and managers in water organisations with responsibility for the preparation of flood mitigation reports.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the required performance needed to demonstrate achievement of the element. Where <i>bold italicised</i> text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Analyse rainfall and run-off regimes.	1.1 Access and interpret historical rainfall run-off and <i>flooding regimes</i> of specific catchments. 1.2 Delineate historical floods. 1.3 Model simulated, hypothetical or estimated rainfall intensity data and catchment characteristics. 1.4 Collate, manipulate and interpret <i>data</i> .
2 Estimate flooding.	2.1 Use <i>techniques for flood estimation</i> and apply to the development of flood estimation guidelines. 2.2 Estimate and record flood levels, extents and flow rates. 2.3 Complete and record <i>flood hazard assessments</i> . 2.4 Analyse and record the impact of <i>planning controls</i> of flood assessments.
3 Report and communicate information.	3.1 Collate, analyse and record information to meet organisational requirements. 3.2 Communicate information to <i>stakeholders</i> using standard organisational procedures. 3.3 Prepare and present reports in a clear, concise and timely manner to meet organisational requirements.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- use mathematical techniques to analyse and model flood data
- collect and interpret data
- manipulate and model data
- develop clear and effective reports
- communicate effectively

Required knowledge:

- catchment hydrology principles
- water flow measurement
- flow routing
- relevant legislation, by-laws and planning schemes
- mathematical calculation
- cultural environment
- occupational health and safety and environmental legislation, Acts and procedures

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to collect and analyse data associated with rainfall, run-off, flood estimation and reporting required for the development and communication of flood mitigation plans including:

- collecting relevant data
- analysing relevant data
- modelling of data
- preparing clear, concise and timely reports
- communicating data and outcomes to stakeholders and team members

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation
- relevant codes, standards, and government regulations

Where applicable, physical resources should include equipment modified for people with disabilities.

Access must be provided to appropriate learning and/or assessment support when required.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
- a decision of competence should only be made when the assessor has complete confidence in the person's competence over time and in various contexts
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence

- where assessment is for the purpose of recognition (RCC/RPL), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time
- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the skill levels of the operator, any cultural issues that may affect responses to the questions, and reflecting the requirements of the competency and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the Performance Criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Flooding regimes may include:

- flood levels
- peaks; flow rates
- area extent
- duration

Data may include:

- time series data
- historical
- rainfall
- flood levels

Techniques for flood estimation may include:

- base flow separation
- flood frequency
- rainfall modelling

Flood hazard assessments may include:

- the safety of people
- safety of animals
- land inundation
- house and other property inundation
- effects on communication and other infrastructures
- ability and extent of need for emergency services industry

- Planning controls** may include.
- cost analysis
 - land use planning
 - construction or destruction of physical structures (e.g. levee banks, sand bag levees)
 - infrastructure development
 - cultural land restrictions
- Stakeholders** may include:
- community groups
 - land holders
 - emergency response groups
 - town planners
 - utility managers (gas, electricity, water)
 - local government
 - industry and commerce

Unit Sector(s)

Not applicable.

Competency field

Common.

NWP519B Develop and report flood mitigation

Modification History

NWP519B Release 2: Layout adjusted. No changes to content.

NWP519B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to analyse and model data relating to flooding, develop effective management and warning systems and communicate the outcomes concisely and effectively.

Application of the Unit

This unit supports the attainment of skills and knowledge required for planners and managers in water organisations with responsibility for the preparation of flood management strategies and flood warning systems.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the required performance needed to demonstrate achievement of the element. Where <i>bold italicised</i> text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Analyse rainfall and run-off regimes.	1.1 Access and interpret historical rainfall run-off and <i>flooding regimes</i> of specific catchments. 1.2 Delineate historical floods. 1.3 Model simulated, hypothetical or estimated rainfall intensity data and model catchment. 1.4 Collate, manipulate and interpret <i>data</i> .
2 Estimate flooding.	2.1 Use <i>techniques for flood estimation</i> and apply to flood estimation guidelines. 2.2 Estimate and record flood levels, extents and flow rates. 2.3 Undertake and record <i>flood hazard assessment</i> .
3 Determine management and warning systems.	3.1 Evaluate the roles of storage and/or retarding basins safety and flood attenuation strategies. 3.2 Evaluate current flood classifications and impacts and formulate planning controls for flood plain or waterway management. 3.3 Evaluate current flood warning systems. 3.4 Recommend or develop changes to existing flood plain or waterway management controls and warning systems.
4 Report and communicate recommendations.	4.1 Prepare and present reports in a clear, concise and timely manner to meet organisational requirements. 4.2 Communicate findings and recommendations to <i>stakeholders</i> .

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- use mathematical techniques to analyse and model flood data
- prepare and plan strategically
- computer skills
- collect and interpret data
- model data
- develop clear and effective reports
- communicate effectively
- interpret data
- manipulate data

- communicate with a range of stakeholders

Required knowledge:

- catchment hydrology principles
- water flow measurement; flow routing
- relevant legislation, by-laws and planning schemes
- mathematical calculation
- cultural environment
- occupational health and safety and environmental legislation, Acts and procedures

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to analyse and develop flood mitigation warning systems and strategies using the effective:

- collecting relevant data
- analysing relevant data
- modelling data
- developing critical flood warning systems
- developing strategies to mitigate the impact of potential future floods
- preparing clear, concise and timely reports
- communicating data and outcomes to stakeholders and team members

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation
- relevant codes, standards, and government regulations

Where applicable, physical resources should include equipment modified for people with disabilities.

Access must be provided to appropriate learning and/or assessment support when required.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period

of time reflecting the scope of the role and the practical requirements of the workplace

- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
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- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the skill levels of the operator, any cultural issues that may affect responses to the questions, and reflecting the requirements of the competency and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the Performance Criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Flooding regimes may include:

- flood levels
- peaks
- flow rates
- area extent
- duration

Data may include:

- time series data
- historical

Techniques for flood estimation may include:

- rainfall
- flood levels
- base flow separation
- flood frequency
- rainfall modelling

Flood hazard assessment may include:

- safety of people
- safety of animals
- land inundation
- house and other property inundation
- effects on communication and other infrastructures
- ability and extent of need for emergency services industry
- cost analysis

Stakeholders may include:

- community groups
- land holders
- emergency response groups
- town planners
- utility managers (gas, electricity, water)
- local government
- industry and commerce

Unit Sector(s)

Not applicable.

Competency field

Common.

NWPGEN005 Coordinate and monitor the application of environmental plans and procedures

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP401B Coordinate and monitor the application of environmental plans and procedures.</p> <ul style="list-style-type: none">• Unit code updated• Content and formatting updated to comply with the new standards• All PC transitioned from passive to active voice• PC 2.5 removed• PC 3.4 and 5.3 revised

Application

This unit describes the skills required to monitor and coordinate the application of environmental plans and procedures to specific projects and to develop environmental procedures for the local work area.

This unit applies to those working in the water industry with a specific responsibility for ensuring that all relevant environmental plans and policies are applied to each project and work site within the scope of their job role, and for ensuring that environmental plans and policies are implemented, monitored, reviewed and reported according to organisational and statutory requirements.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work autonomously while performing complex tasks, in a range of familiar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

General

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Determine relevant environmental plans and procedures	1.1 Identify environmental plans and procedures and determine relevance to specific projects or work sites. 1.2 Interpret relevant environmental plans and procedures in relation to specific project or site activities.
2. Implement environmental plans and procedures	2.1 Identify environmental risks and impacts. 2.2 Manage and minimise environmental risks. 2.3 Apply emergency procedures. 2.4 Carry out activities according to environmental plans and procedures.
3. Manage project or site specific environmental procedures	3.1 Assess the need for project or site specific environmental procedures. 3.2 Consult stakeholders and address issues and concerns. 3.3 Develop specific project or site environmental procedures. 3.4 Review and maintain specific project or site environmental procedures.
4. Control environmental incidents	4.1 Identify environmental incidents at site and apply appropriate control measures. 4.2 Analyse environmental incidents to prevent recurrence. 4.3 Record and report environmental incidents and complete environmental management documentation.
5. Monitor and report on environmental plans and procedures	5.1 Monitor and report on the implementation of environmental plans and procedures. 5.2 Report environmental risks. 5.3 Coordinate reviews of environmental procedures and report.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP401B Coordinate and monitor the application of environmental plans and procedures.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Assessment Requirements for NWPGEN005 Coordinate and monitor the application of environmental plans and procedures

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- reporting and recording environmental procedures
- developing local workplace environmental procedures
- coordinating and monitoring the application of environmental plans and procedures
- identifying and analysing environmental plans and procedures relevant to a representative variety of projects and work sites
- interpreting and implementing relevant environmental plans and procedures for a typical project or work site
- developing site or project specific environmental plans and procedures for an atypical project or work site, including consultation with stakeholders
- managing environmental incidents
- monitoring, reporting and reviewing the implementation of environmental plans and procedures
- coordinating participation by relevant sectors of the workforce

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- relevant legislative requirements and procedures
- sedimentation and erosion control
- rare and endangered plants

- identification of risks and impacts
- potential environmental risks and incidents
- disposal of dangerous and contaminated soils
- environmental auditing
- concepts of due diligence
- principles of environmental protection
- endangered species and habitat protection
- environmental impact assessment
- waste management

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -
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NWPIRR002 Operate basic flow control and regulating devices in irrigation systems

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP222A Operate basic flow control and regulating devices in irrigation systems.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • Elements 1 and 2 merged • PC 2.2 removed • PC 4.2 and 4.3 reworded

Application

This unit describes the skills required to operate basic flow control and regulating devices in irrigation systems.

This unit applies to those working as field and operational staff with responsibility for using flow control and metering devices according to organisational procedures.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work independently or in a team, under direct supervision using own familiar resources as required, while performing routine tasks in range of familiar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Monitor and regulate required flows in irrigation systems	1.1 Access and apply operating requirements for flows in irrigation systems. 1.2 Use equipment to assist operational activities. 1.3 Monitor, measure and record flows at designated locations and systems according to schedule. 1.4 Identify potential operational problems and provide proactive advice. 1.5 Adjust flow regulation and control mechanisms to increase and decrease flow.
2. Record and report system adjustments	2.1 Produce information relating to flow adjustments. 2.2 Collect, record and report information on flows and abnormalities.
3. Respond to contingencies	3.1 Identify and assess potential risks and contingencies in the operation of flow control and regulating devices. 3.2 Respond to potential and actual risks and contingencies. 3.3 Inform relevant personnel within organisation of potential risks.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website..

Unit Mapping Information

This unit supersedes and is equivalent to NWP222A Operate basic flow control and regulating devices in irrigation systems.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Assessment Requirements for NWPIRR002 Operate basic flow control and regulating devices in irrigation systems

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- collecting and reporting system performance information
- interpreting data
- producing information, including at least one of:
 - meter reading reports
 - daily running sheets
- adjusting and maintaining flow system control mechanisms
- securing flow regulation devices
- identifying flow requirements
- preparing for and conducting flow monitoring
- identifying and reporting operational problems
- completing records and reports

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- impact of the principles of hydraulics on the operation of flows
- system layout
- risk factors and potential hazards
- equipment operation, capacity and limitations
- effects of weather and conditions on operation of system and site

- system flow control mechanisms
- relevant lock-out procedures for mechanical and electrical installations

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
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NWPIRR012 Construct open earthen channels or drains

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP251B Construct open earthen channels or drains.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • PC 1.5 revised

Application

This unit of competency describes the skills required to plan and prepare for the construction of open channels or drains and to complete construction operations and subsequent site restoration.

This unit applies to those working as field and operational staff involved in the construction of earthen channels and drains for stormwater or irrigation systems or the remodelling or reconstruction of unserviceable systems.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to, particularly those related to WHS and manufacturers' guidelines.

Those undertaking this unit would work under direct supervision, while performing routine tasks and ensuring minimal damage to the environment, in a familiar context.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Plan and prepare for construction work	1.1 Determine work requirements from design plans, specifications, instructions and work orders. 1.2 Check site and identify hazards. 1.3 Make appropriate drainage and diversion arrangements without damage to environment. 1.4 Check equipment and open-cut excavation methods to ensure that safety requirements of task and site are met. 1.5 Select suitable soil material.
2. Construct channels or drains	2.1 Construct earthen channels, drains and batters to planned width, depth and gradient. 2.2 Compact soil, apply additives and take earth samples. 2.3 Check construction works to ensure that specifications are met.
3. Restore work site and equipment	3.1 Check, maintain and store equipment, tools and materials. 3.2 Restore work site and add environmental improvements or controls to complete work, according to plans.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5					
Learning NA					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP251B Construct open earthen channels and drains.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Assessment Requirements for NWPIRR012 Construct open earthen channels or drains

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none"> Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- identifying and responding to operational problems
- producing reports and logs
- using safety and personal protective equipment
- using tools and machinery
- interpreting plans, charts and instructions
- applying procedures and standards
- applying channel, drain and batter construction techniques
- identifying soil types, mechanics and compaction rates
- selecting and operating appropriate compaction plant, including tamping foot and smooth drum roller
- operating communication systems
- performing work related calculations
- constructing open earthen channels and drains
- planning work and preparing work site according to given specifications and instructions
- cutting channels to specification
- compacting soil
- taking soil samples
- checking that work meets specifications
- cleaning and storing equipment
- restoring work site

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- channel and drain system design basics
- channel and drain system layout
- environmental aspects of construction
- channel, drain and batter construction processes
- measures to reduce channel deterioration, infestation of weeds, pests and seepage
- relevant utilities and service providers
- safe use of lasers
- use of automatic levels
- basic levelling techniques
- profiles and boning rods
- survey principles
- soil types, mechanics and compaction rates
- capabilities of plant used for construction, including equipment operation, capacity and limitations
- communication systems
- work related calculations
- hazardous materials handling
- landscape and ground structure of work area
- risk factors and potential hazards of construction processes
- effects of weather and conditions on construction site or plant
- control systems

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

NWPIRR013 Construct and install irrigation delivery and stormwater drainage assets

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP252B Construct and install irrigation delivery and stormwater drainage assets.</p> <ul style="list-style-type: none">• Unit code updated• Content and formatting updated to comply with the new standards• All PC transitioned from passive to active voice• Element 2 reworded• PC 2.2 and 2.3 merged

Application

This unit of competency describes the skills required to construct irrigation delivery or stormwater drainage assets on site and to install both constructed assets and prefabricated components.

This unit applies to those working as field staff with specific responsibility for ensuring that the construction and installation of irrigation or stormwater drainage assets is completed in a safe and timely manner.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to, particularly those related to WHS.

Those undertaking this unit would work under indirect supervision, while performing routine tasks and ensuring minimum damage to the environment, in a familiar context.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Plan and prepare for work	1.1 Determine work requirements from specifications and instructions. 1.2 Select, fit and use personal protective equipment. 1.3 Perform site check to identify hazards and prevent damage to other utilities. 1.4 Provide appropriate drainage and diversion from work site. 1.5 Check equipment and excavation methods to meet safety requirements of task and site.
2. Construct and install drains, channels and associated fittings	2.1 Provide bedding and foundations according to structure type, location and specification. 2.2 Select, place and install prefabricated components and fittings. 2.3 Check installed fittings and prefabricated components to ensure that specifications are met. 2.4 Construct components on-site.
3. Finalise work	3.1 Check constructions and installations to ensure that specifications are met. 3.2 Check, maintain and store equipment, tools and materials. 3.3 Backfill, compact and restore work site. 3.4 Maintain workplace records.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning NA					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP252B Construct and install irrigation delivery and stormwater drainage assets.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Assessment Requirements for NWPIRR013 Construct and install irrigation delivery and stormwater drainage assets

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- identifying and responding to operational problems
- producing reports and logs
- using safety and personal protective equipment
- using tools and machinery
- interpreting plans, charts and instructions
- performing work related calculations
- applying procedures and standards
- using communication equipment
- constructing and installing irrigation delivery or stormwater drainage assets
- planning work and preparing work site
- constructing assets
- installing assets
- checking that work meets specifications
- cleaning and storing equipment
- restoring work site
- completing documentation

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- system layout
- environmental aspects of construction
- construction processes
- relevant utilities and service providers
- communication systems
- hazardous materials handling
- landscape and ground structure of work area
- risk factors and potential hazards of construction processes
- equipment operation, capacity and limitations
- effects of weather and conditions on construction site or plant
- control systems
- pre-cast components
- pipes and fittings

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

NWPIRR014 Install meters for rural water supplies

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP302A Install meters for non-potable, non-urban water supplies.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • Unit title changed to better reflect unit outcomes • Element 2 removed • One new PC added to Element 1 • PC 1.4 removed • PC 2.4 renumbered • Element 2 and 4 merged • All PC revised

Application

This unit describes the skills required to install water meters for rural water supplies.

This unit applies to those working as field or operational staff installing meters.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work independently under direct supervision, while performing routine tasks ensuring minimum damage to the environment, in a familiar context.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Confirm conditions of the site for meter installation	1.1 Identify the location of the site and establish client information from work plans and job specifications. 1.2 Identify access to the site and any conditions of access. 1.3 Assess the conditions of the site. 1.4 Set out the site. 1.5 Carry out a job safety analysis and identify and control hazards.
2. Install meter facilities	2.1 Ensure that excavations provide sufficient width for movements of installation. 2.2 Install meter as set out in design and specifications. 2.3 Check fittings, seals and operation. 2.4 Install ancillary equipment and check for operation and seal. 2.5 Check meter installation for compliance with manufacturer specifications.
3. Restore site	3.1 Backfill with suitable material, moisture content and compaction to maximise compaction efficiency. 3.2 Restore the site to original site conditions.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing NA					Oral communication NA					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP302A Install meters for non-potable, non-urban water supplies.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Assessment Requirements for NWPIRR014 Install meters for rural water supplies

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none"> Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- planning meter installation and construction
- undertaking calculation of head, flow and measurements of pipes and pressure
- undertaking locational assessment and risk analysis for meter installation
- sampling and testing soil for backfill and installation structures
- analysing the impact of water infiltration on the stability of structures
- measuring the head of water to judge sufficiency for meter's accuracy
- checking power supply and links
- installing ancillary equipment
- positioning solar panels to maximise power collection
- undertaking a job safety analysis and checking hazards and safety requirements
- using and storing equipment on site
- determining excavation requirements
- calculating sump and headwall elevation and orientation
- calculating pipe and meter pit elevation, fall and presentation
- installing transducers and cabling safely
- interpreting manufacturer requirements for fitting meters in meter pits
- using techniques to protect meters from disturbance
- assessing the effectiveness of backfill
- undertaking site restoration
- identifying and analysing client requirements, site conditions and their impact on the types of meter required, and the design of the installation

- identifying and analysing environmental conditions and limitations and the impact of work to be undertaken
- identifying and analysing safety risks and hazards and responding to remove risks and hazards
- preparing sites and equipment for installation
- identifying faults, changes and failure indicators

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- the purpose and standards for non-urban water metering
- community expectations for water measurement and use
- standards for the installation of non-urban meters in open and closed conduit systems
- the social, environmental, economic and political responsibilities of water authorities in relation to meter installation
- requirements for checking the pattern approval of meters and compliance with meter installation standards
- meter manufacturers' guidelines and installation manual for specific meters
- the organisation's policies and procedures for water meter installation
- conditions for meter location and suitable installation assets and meters for the conditions
- causes of flow disturbance
- potential environmental causes of meter failure
- the organisation's environmental impact guidelines
- maintenance requirements for meter facility within and open channel
- relevant safety requirements including confined space

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

NWPIRR022 Maintain meters for rural water supplies

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP304A Maintain meter for non-potable, non-urban water supplies.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • Unit title changed to better reflect unit outcomes • PC 4.3 removed • PC 1.3 and 1.4 merged • PC 2.1, 2.3, 2.4 and 2.5 merged and revised

Application

This unit describes the skills required to maintain the operational integrity of already installed meters, metering systems and their components. This unit covers corrective, predictive and preventative maintenance.

This unit applies to those working in the water industry as field or operational staff maintaining meters for rural water supply.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work under independently under direct supervision, while performing routine tasks in familiar context.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Confirm meter type and location within asset management system	1.1 Obtain organisational maintenance plan and manufacturer guidelines. 1.2 Locate meter emplacement on a map, or by GPS, or according to organisational procedures. 1.3 Confirm that meter type and number match maintenance plan or manufacturer guidelines.
2. Check condition of meters and metering system	2.1 Check components and identify faults using an asset condition checklist. 2.2 Establish maintenance requirements.
3. Maintain meter and meter facilities	3.1 Repair or replace faulty components. 3.2 Identify faults which need to be rectified by a third party.
4. Test and recommission	4.1 Ensure meter complies with standards. 4.2 Perform on-site re-test of meter. 4.3 Record faults and meter performance, maintenance and repairs.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning NA					Reading					Writing					Oral communication NA					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP304A Maintain meter for non-potable, non-urban water supplies.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Assessment Requirements for NWPIRR022 Maintain meters for rural water supplies

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none"> Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. The candidate must be assessed in at least two of the different fault types listed in the Range of Conditions. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- reading and analysing electronic display
- inputting data into electronic controller
- working with low voltage wiring
- reading manufacturers' instructions, plans, exploded drawings and parts catalogues
- reading verification marks
- using tags and seals
- confirming the site and the meter
- checking meter condition
- replacing components
- documenting the maintenance

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- relevant organisational policies and procedures for water meter maintenance
- organisational rights and responsibilities
- manufacturers' maintenance procedures for specific meter types
- knowledge of checking pattern approval requirements
- standards for non-urban metering

- GPS coordinates
- meter types and accuracy limits
- roles and responsibilities of maintenance personnel
- WHS guidelines
- environmental, cultural and heritage guidelines

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

NWPIRR024 Monitor and conduct maintenance on flow control and metering devices

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP305B Monitor and conduct maintenance of complex flow-control and metering devices.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • Unit title changed to better reflect unit outcomes • All PC transitioned from passive to active voice • One new PC added to Element 2 • All PC in Element reordered • PC 4.3 removed

Application

This unit describes the skills required to monitor the operation of flow control. This includes measuring and regulating devices, controlling water supply source systems and/or distribution systems.

This unit applies to those working as field staff with a responsibility for monitoring the operation of flow control, measuring and regulating devices, conducting maintenance and ensuring that problems and anomalies are rectified by specialist technicians.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to, particularly those related to WHS and manufacturer specifications.

Those undertaking this unit would work under indirect supervision, performing routine tasks ensuring minimum damage to the environment, in a familiar context.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Plan and prepare for work	1.1 Interpret work requirements for monitoring flow control and metering devices from plans, drawing specifications and instructions. 1.2 Select and check equipment and tools to meet the safety requirements of the task and site. 1.3 Select, fit and use required safety equipment, including personal protective equipment.
2. Monitor device and equipment performance	2.1 Identify devices and equipment. 2.2 Check and interpret information and specifications on devices and equipment performance. 2.3 Report on devices and equipment performance.
3. Conduct minor maintenance on devices and equipment	3.1 Undertake routine maintenance tasks for complex devices. 3.2 Secure devices and equipment. 3.3 Identify and report problems and anomalies for correction.
4. Monitor system performance	4.1 Schedule and monitor routine inspections of system and networks. 4.2 Collect, analyse and report data on system performance and usage.
5. Compile process records and reports	5.1 Identify process faults and monitor the operational condition of the system and network. 5.2 Report on adjustment requirements and condition of the system.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning NA					Reading					Writing					Oral communication					Numeracy NA				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP305B Monitor and conduct maintenance of complex flow-control and metering devices.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Assessment Requirements for NWPIRR024 Monitor and conduct maintenance on flow control and metering devices

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- identifying and reporting operational problems
- collecting and reporting system performance information
- inspecting flow regulation, measuring and regulating devices
- producing reports and logs
- using communication systems
- giving and receiving instructions
- interpreting plans, charts and instructions
- interpreting policies, procedures and standards
- monitoring the operation of flow control, measuring and regulating devices
- selecting appropriate equipment and tools, including personal protective equipment
- identifying devices and equipment to be monitored and relevant operational specifications
- collecting and recording information on device performance
- conducting routine maintenance tasks and securing devices
- identifying and reporting problems and anomalies
- inspecting system and networks
- collecting and recording data on system performance
- reporting monitoring and inspecting findings
- identifying and reporting on system performance

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- monitoring flow control, measuring and regulating devices' performance
- system hydraulics
- system layout
- relevant utilities and service bodies
- communication systems
- materials handling
- environmental, landscape and ground structure of water distribution system and network risk factors and potential hazards
- equipment operation, capacity and limitations
- effects of weather and conditions on operation of system and site
- flow measurement procedures
- data collection and recording
- system flow control mechanisms and control systems
- lock out procedures for mechanical and electrical installations

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

NWPIRR033 Coordinate and monitor the operation of irrigation delivery systems

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP425B Coordinate and monitor the operation of irrigation delivery systems.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • PC 2.1 removed • PC 2.2 reworded • PC 2.4 revised

Application

This unit describes the skills required to coordinate and monitor irrigation delivery systems to meet performance standards and including system maintenance and customer liaison.

This unit applies to those working as field and operational staff with a specific responsibility for ensuring that the operation of irrigation systems complies with organisational and statutory requirements.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work independently or in a team, while performing complex tasks ensuring minimum damage to the environment in a familiar context. However, the level of responsibility may vary according to the size, scope, location, and technical complexity of process.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Confirm performance measures in irrigation system's management plan	1.1 Identify customer requirements for irrigated culture. 1.2 Identify environmental factors that impact on the irrigation system. 1.3 Consult historic system information and stakeholders as appropriate. 1.4 Confirm performance requirements for an irrigation system management plan.
2. Monitor and coordinate processes and resource targets	2.1 Monitor and test programs and identify, investigate and report any deviations from water quantity, quality, release or flow. 2.2 Evaluate the duration, volume and flow rates of water deliveries and identify, investigate and report deviations from agreed service levels. 2.3 Evaluate maintenance activities and report deviations from targets. 2.4 Identify and record links between operational problems and maintenance activities.
3. Report outcomes of coordination and monitoring	3.1 Analyse, record and report coordination and monitoring data. 3.2 Identify and report current and potential problems. 3.3 Make recommendations for improvements in system performance and/or customer service.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5					
Learning NA					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP425B Coordinate and monitor the operation of irrigation delivery systems.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Assessment Requirements for NWPIRR033 Coordinate and monitor the operation of irrigation delivery systems

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- assessing environmental impact
- operating irrigation and/or domestic stock supply system
- checking channel flow
- identifying customer requirements for irrigated culture and environmental factors that impact on the irrigation system
- consulting historic system information and stakeholders as appropriate
- confirming performance requirements for an irrigation system management plan
- implementing monitoring and testing programs and investigating and reporting deviations from planned parameters
- evaluating performance of water deliveries and investigating and reporting deviations from agreed service levels
- evaluating performance targets
- analysing and reporting data
- identifying and reporting problems
- making recommendations for system performance or customer service improvements

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- relevant legislation, policies and procedures

- customer expectations and requirements
- impact of the principles of hydraulics on the operation of flows
- coordination processes
- principles of scheduling
- system layout and operations
- environmental aspects of irrigation and/or stock and domestic supply system asset infrastructure
- environment, landscape and ground structure of work area
- risk factors and potential hazards of irrigation and/or domestic and stock supply systems
- equipment operation, capacity and limitations
- water flow calculations
- gravity systems
- control systems

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

NWPIRR042 Monitor and schedule water deliveries

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP316B Monitor and schedule water deliveries.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice

Application

This unit of competency describes the skills required to schedule water deliveries for irrigation and/or domestic and stock supply systems, including monitoring flows, analysing data, coordinating hydraulic processes and compiling operational reports.

This unit applies to those working as field staff and operators with a specific responsibility for ensuring that water deliveries meet varying customer requirements.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to, particularly those related to WHS.

Those undertaking this unit would work under indirect supervision, while performing routine tasks ensuring minimum damage to the environment, in a familiar.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Schedule water deliveries	1.1 Identify and record customer water orders. 1.2 Analyse water orders to determine water delivery and flow rate requirements. 1.3 Schedule water deliveries to meet flow rate requirements and organisational standards for channel balance and capacity restraints.
2. Monitor water delivery	2.1 Monitor channel flow rate, regulation and delivery according to customer requirements. 2.2 Maintain delivery performance records. 2.3 Analyse system performance using system data and records to determine actual and planned performance.
3. Coordinate and control water delivery	3.1 Calculate system adjustments according to demand and organisational requirements. 3.2 Coordinate flow regulation, channel levels, security of flow devices and settings according to demand and organisational requirements.
4. Compile records of water delivery	4.1 Compile reports from systems performance data. 4.2 Maintain appropriate measurement and delivery records.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5					
Learning NA					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP316B Monitor and schedule water deliveries.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Assessment Requirements for NWPIRR042 Monitor and schedule water deliveries

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none"> Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- identifying and responding to operational problems
- producing basic reports and logs
- following plans, charts and instructions
- performing work related calculations
- operating irrigation and/or domestic stock supply system
- checking channel flow
- identifying control system faults
- preparing schedules for water deliveries for customer orders for irrigation and/or domestic stock supply systems
- analysing volumes and flow rates required for water deliveries
- monitoring and regulating system performance
- adjusting system according to demand
- coordinating flow regulating devices
- completing relevant documentation

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- system hydraulics
- impact of the principles of hydraulics on the operation of flows

- coordination processes
- principles of scheduling
- system layout and operations
- policies and standard operating procedures
- communication systems
- environmental aspects of irrigation and/or stock and domestic supply system asset infrastructure
- environment, landscape and ground structure of work area
- risk factors and potential hazards of irrigation and/or domestic and stock supply systems
- equipment operation, capacity and limitations
- effects of weather and conditions on operation of site plant
- water flow calculations
- flow measurement procedures
- gravity systems
- control systems

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

NWPIRR062 Develop and review irrigation system management plan

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP531B Develop and review irrigation system management plan.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice

Application

This unit describes the skills required to develop and review the operation and maintenance of irrigation systems, including system performance analysis, customer liaison and planning.

This unit applies to those working as managers in water organisations with responsibility for the management of the irrigation system.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work autonomously, with supervision responsibility, performing sophisticated tasks in a range of contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Plan and prepare for management of the irrigation system	1.1 Determine and interpret water quantity and quality requirements including release and flow rates. 1.2 Access and interpret historic system capacity information. 1.3 Identify and access legislative, organisational and environmental requirements and system constraints that impact on the delivery of irrigation water.
2. Develop an irrigation system management plan	2.1 Identify and interpret irrigation system management requirements. 2.2 Identify and validate customer requirements for irrigated culture. 2.3 Consult stakeholders, or their representatives, and obtain input for the management plan. 2.4 Develop and record an irrigation system management plan.
3. Review and refine the irrigation system management plan	3.1 Monitor outcomes of the operations and maintenance evaluations and incorporate into the system management review. 3.2 Review objectives of the management and implementation plans. 3.3 Make recommendations for changes to plan objectives and operational and maintenance procedures. 3.4 Provide advice and guidance to stakeholders.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website

Unit Mapping Information

This unit supersedes and is equivalent to NWP531B Develop and review irrigation system management plan.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Assessment Requirements for NWPIRR062 Develop and review irrigation system management plan

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- interpreting and applying legislation and policies
- coordinating measuring and testing activities
- conducting investigations
- assessing environmental impacts
- developing and reviewing the operation and maintenance of irrigation systems
- gathering, interpreting and synthesising information including historical system capacity data, current legislation and standards, stakeholder views and monitoring results to underpin the sound development of the irrigation system management plan
- consulting widely and effectively
- developing effective irrigation system management plans that address the water organisation's objectives and requirements
- using data from monitoring arrangements to track the performance of the irrigation system management plan and inform the review of the plan
- preparing reports and recommendations for changes to the objectives of the management plan and its implementation

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- relevant legislation, policies and procedures
- measuring and testing procedures

- investigation procedures
- customer expectations and requirements

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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NWPIRR063 Develop and review surface water management plan

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP517B Develop and review surface water management plan.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice

Application

This unit describes the skills required to develop and review a surface water management plan to ensure environmental considerations are met and source of supply is maintained.

This unit applies to those working as managers in water organisations with responsibility for the management of surface water resources.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work autonomously, managing staff, while performing sophisticated tasks in a range of familiar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Plan and prepare for management of surface water flows and quality	1.1 Identify and interpret surface water flow requirements. 1.2 Identify and interpret water flow, quality and quantity requirements, including release. 1.3 Identify and interpret historic source water flow and system capacity information. 1.4 Identify and interpret environmental flows that impact on water flows and quality. 1.5 Identify and interpret environmental factors that impact on surface water. 1.6 Identify, interpret and review the current status of resource and operational protocols.
2. Develop the surface water management plan	2.1 Identify and interpret surface water management requirements. 2.2 Identify, interpret and validate stakeholder issues that impact on surface water. 2.3 Develop a surface water management plan.
3. Review the surface water management plan	3.1 Analyse and report deviations from planned performance measures. 3.2 Review objectives of the management and implementation plans. 3.3 Review parameters for water usage and quality through monitoring and testing programs. 3.4 Make recommendations for changes to plan objectives and procedures, and usage and quality parameters. 3.5 Provide advice and guidance to water users and stakeholders.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website

Unit Mapping Information

This unit supersedes and is equivalent to NWP517B Develop and review surface water management plan.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Assessment Requirements for NWPIRR063 Develop and review surface water management plan

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- developing and reviewing a surface water management plan to ensure environmental considerations are met and source of supply is maintained
- reading and interpreting complex numerical data and performing complex calculations to track and manage performance of surface water
- gathering, interpreting and synthesising information, including:
 - historical data
 - current legislation and standards
 - stakeholder views
 - monitoring and test results
- developing effective surface water management plans that address the water organisation's objectives and requirements
- using data from testing and other monitoring arrangements to track the performance of the surface water management plan and inform the review of the plan
- preparing reports and recommendations for changes to the objectives of the management plan and its implementation

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- relevant legislation, policies and procedures

- risk management principles
- customer expectations and requirements
- climatic and weather characteristics and impacts
- hydraulic analysis

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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NWPIRR072 Implement and coordinate surface water management plan

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP516B Implement and manage surface water management plan.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • Unit title changed to better reflect unit outcomes

Application

This unit describes the skills required for the implementation of the management plan for surface water to ensure environmental considerations are met and source of supply is maintained.

This unit applies to those working as managers in water organisations with responsibility for the management of surface water resources.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work autonomously, managing staff, while performing sophisticated tasks in a range of familiar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Implement and coordinate monitoring and testing program	1.1 Confirm performance measures of the surface water management plan. 1.2 Design and implement monitoring and testing programs. 1.3 Coordinate activities relating to the surface water plan. 1.4 Interpret and record test results and education programs. 1.5 Identify and investigate current and/or potential problems and report results and recommendations. 1.6 Gather and evaluate historical surface water information. 1.7 Monitor water usage, water flow and water quality according to the plan.
2. Monitor and evaluate performance of surface water management plans	2.1 Identify, investigate and report deviations of planned water usage and quality and management plan procedures. 2.2 Review objectives of the management and implementation plans. 2.3 Review parameters for water usage and quality. 2.4 Monitor and review environmental factors that impact on surface water. 2.5 Make recommendations for changes to plan objectives and procedures and usage and quality parameters. 2.6 Provide advice and guidance to water users and stakeholders.
3. Report on monitoring and implementation activities	3.1 Identify and report deviations from the management plan. 3.2 Review and report objectives of the management and implementation plans. 3.3 Make recommendations for changes to plan objectives.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP516B Implement and manage surface water management plan.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Assessment Requirements for NWPIRR072 Implement and coordinate surface water management plan

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- implementing management plans for surface water to ensure environmental considerations are met and source of supply is maintained
- performing calculations relating to water usage and quality
- reading and interpreting a range of numerical data related to surface water and environmental factors
- gathering, interpreting and synthesising information, including:
 - historical data
 - current legislation and standards
 - stakeholder views
 - water quantity and quality test results
- designing and implementing testing processes and programs
- monitoring and evaluating the outcomes of the surface water management plan
- providing advice about water usage and communicate with stakeholders and users
- preparing reports and recommendations for future action

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- relevant legislation, policies and procedures
- risk management principles

- climatic and weather characteristics and impacts
- hydraulic analysis

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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NWPIRR073 Implement and coordinate catchment management plan

Modification History

Release	Comments
1	<p>This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP512B Implement and manage catchment management plan.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • Unit title changed to better reflect unit outcomes • Element 4 reworded • PC 1.6 removed • PC 2.2 and 2.4 merged

Application

This unit describes the skills required to implement and coordinate activities in water catchments that impact on water yield and/or quality, to ensure performance measures for the catchment management plan are met.

This unit applies to those working as managers in water organisations with responsibility for the management of water catchments.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work autonomously, managing staff, while performing sophisticated tasks in a range of familiar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Irrigation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Prepare for catchment management	1.1 Confirm performance measures for the catchment management plan. 1.2 Identify and interpret catchment management requirements. 1.3 Identify user and customer requirements and environmental factors that impact on the catchment area. 1.4 Gather historical catchment information and evaluate as input to the management process. 1.5 Identify, interpret and assess water quality and quantity requirements.
2. Implement the catchment management plan	2.1 Inform stakeholders about catchment activity regulations. 2.2 Develop and coordinate management plan activities. 2.3 Develop the implementation plan.
3. Monitor the catchment management plan	3.1 Design and implement monitoring and testing programs. 3.2 Analyse, interpret and record testing results. 3.3 Manage the identification and investigation of current and/or potential problems. 3.4 Report the results of the investigation of problems and make recommendations. 3.5 Monitor the catchment area usage according to the plan. 3.6 Manage the identification, investigation and reporting of breaches of usage provisions.
4. Review the catchment management plan	4.1 Review objectives of the management and implementation plans. 4.2 Make recommendations for changes to objectives and implementation procedures.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP512B Implement and manage catchment management plan.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Assessment Requirements for NWPIRR073 Implement and coordinate catchment management plan

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- designing and managing measuring and testing activities
- analysing test results
- coordinating and overseeing the conduct of investigations
- assessing environmental impact
- reading and interpreting a range of numerical data related to water catchment
- developing implementation plans that reflect management plan objectives and organisational requirements
- implementing and managing activities in water catchments that impact on water yield and quality
- ensuring performance measures for the catchment management plan
- gathering, interpreting and synthesising information (including historical data, current legislation and standards, stakeholder views and water quality test results) to underpin the sound management of the water catchment plan
- consulting widely and effectively
- developing implementation plans that address the objectives and requirements specified in the management plan
- developing, implementing and overseeing testing and other monitoring arrangements to track the performance of the catchment management plan
- preparing reports and recommendations for future action

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- relevant historical records
- relevant legislation, policies, procedures
- risk management principles

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
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NWPTRT062 Operate and control reclaimed water irrigation

Modification History

Release	Comments
1	<p>This unit was released in NWP National Water Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to NWP362B Monitor, operate and control reclaimed water irrigation.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • Unit title changed to better reflect unit outcomes

Application

This unit describes the skills required to operate and control reclaimed water irrigation and the use of reclaimed water for irrigation practices.

This unit applies to those working as staff members with a specific responsibility for analysing the critical aspects of reclaimed water reuse management relating to a project or site and implementing reclaimed water reuse irrigation.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work under indirect supervision, performing routine tasks in a familiar context, ensuring minimum damage to the environment.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Treatment

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Assess sites for reclaimed water irrigation	1.1 Identify soil/water interactions and soil properties important for plant growth. 1.2 Identify soil sampling sites, collect samples and conduct soil testing. 1.3 Classify soils using field texture, pH and structure analysis. 1.4 Monitor and determine the water holding capacity of the soil.
2. Assess quality of reclaimed water for irrigation	2.1 Sample and test reclaimed water and interpret quality parameters. 2.2 Determine crops suitable for the quality of reclaimed water and site conditions.
3. Implement reclaimed water irrigation	3.1 Identify basic features of irrigation systems. 3.2 Operate and maintain irrigation equipment. 3.3 Identify and apply irrigation scheduling options for reclaimed water. 3.4 Produce water budgets using crop factors and climate data. 3.5 Apply irrigation water and collect and monitor tail water or runoff.
4. Respond to water or soil quality issues	4.1 Develop irrigation management options to respond to water quality issues. 4.2 Identify and apply requirements and options for soil ameliorants. 4.3 Monitor infiltration and drainage.
5. Compile reclaimed water irrigation records	5.1 Compile reports from system data. 5.2 Report observations outside defined parameters for further action.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP362B Monitor, operate and control reclaimed water irrigation.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Assessment Requirements for NWPTRT062 Operate and control reclaimed water irrigation

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP National Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- monitoring and managing soil
- solving operational problems
- accessing, interpreting and applying relevant legislation
- apply environmental policies, plans and procedures
- assessing environmental risks at the work site
- identifying soil groups
- using safety and personal protective equipment
- sampling and testing soil and water
- monitoring, operating and controlling reclaimed water irrigation
- analysing critical aspects of reclaimed water reuse management relating to the project or site
- implementing reclaimed water reuse irrigation
- identifying environment, health and safety risks and impact on soil, stock and operators
- applying environmental procedures
- participating in and contributing to reviews of reclaimed water reuse procedures

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- key principles of irrigation practices, including irrigation scheduling

- key characteristics of reclaimed water
- relevant legislative requirements
- standard operating procedures
- primary agencies involved in drinking water quality management
- water quality performance indicators
- an overview of the water supply system
- water hazardous agents and preventative strategies
- community and agency roles and responsibilities in monitoring water quality
- best management practices for the use of reclaimed water for irrigation purposes
- reclaimed water usage licensing procedures and requirements
- environmental, landscape and ground structure of work area
- equipment operation, capacity and limitations
- effects of weather and conditions on operation of site or plant
- interpretation and use of material safety data sheets
-

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
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PSPPCY004 Support policy implementation

Modification History

Release	Comments
1	<p>This unit was released in PSP Public Sector Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to PSPPOL404A Support policy implementation.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with new standards • All PC transitioned from passive to active voice

Application

This unit describes the skills required to identify, implement and monitor relevant policy and report on implementation.

This unit applies to public sector staff and other stakeholders working in a role where they are required to support policy implementation.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work independently. They would perform routine tasks in a range of familiar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Policy

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Identify relevant policy	1.1 Identify work situations that are shaped by government or organisation policy. 1.2 Identify and locate policy relating to particular work situations.
2. Implement policy	2.1 Interpret policy to be implemented to identify and plan for change in work practices. 2.2 Identify the implications of policy for individual work practices, confirm and adjust practices to reflect policy requirements. 2.3 Support others affected by policy requirements to accommodate those requirements.
3. Monitor and report on policy implementation	3.1 Gather, record and report information that will assist with the evaluation of the effectiveness of policy implementation. 3.2 Gather, record and report information that will assist with evaluation of policy impact on organisational outcomes.

Foundation Skills

Foundation skills are embedded within the elements and performance criteria of this unit.

Unit Mapping Information

This unit supersedes and is equivalent to PSPPOL404A Support policy implementation.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Assessment Requirements for PSPPCY004 Support policy implementation

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in PSP Public Sector Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none"> Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion:

- reading complex and formal documents and providing information on their application
- preparing accurate written reports with language and structures suited to the intended audience
- working with legislation drafters and legal advisers
- consulting on and preparing policy guidelines
- adjusting communication to suit different audiences
- gathering and analysing policy feedback

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- practices and procedures for developing policy guidelines
- policy feedback mechanisms
- current organisation policies
- government policies and international policy obligations that impact on organisation policy
- organisation and government procedures and protocols
- public sector codes of ethics and code/s of conduct

Assessment Conditions

This unit contains no specific industry-mandated assessment conditions. Guidance on suggested and recommended conditions and methods can be found in the Implementation Guide.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

PSPPCY010 Manage policy implementation

Modification History

Release	Comments
1	<p>This unit was released in PSP Public Sector Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to PSPPOL603A Manage policy implementation.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with new standards • All PC transitioned from passive to active voice

Application

This unit describes the skills required to interpret policy and manage policy implementation process. It includes interpreting and communicating the requirements of policy, and policy implementation.

This unit applies to those working as public sector staff required to manage policy implementation.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work independently, with staff supervision responsibilities, while performing complex tasks in familiar context.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Policy

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Interpret and communicate requirements of policy	<p>1.1 Identify the expected outcomes of policy implementation and communicate to staff.</p> <p>1.2 Interpret policy relative to workplace responsibilities and accountabilities.</p> <p>1.3 Communicate the impact on work activities of policy implementation to staff and other stakeholders.</p> <p>1.4 Assist staff with the interpretation of policy and its application to their work.</p>
2. Implement policy	<p>2.1 Identify potential or impending policy changes and prepare strategies to accommodate and communicate those changes.</p> <p>2.2 Prepare work plans consultation with staff and management to ensure that policy is implemented as intended.</p> <p>2.3 Monitor staff performance to ensure that it complies with policy.</p> <p>2.4 Assist staff in adjusting to changes.</p>

Foundation Skills

Foundation skills are embedded within the elements and performance criteria of this unit.

Unit Mapping Information

This unit supersedes and is equivalent to PSPPOL603A Manage policy implementation.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Assessment Requirements for PSPPCY010 Manage policy implementation

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in PSP Public Sector Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none"> Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- interpreting complex and formal documents
- providing leadership to the workgroup in the interpretation and implementation of policy
- managing policy implementation on 2 or more occasions or in 2 or more contexts

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- range and type of policies relating to the public sector
- public sector code/s of ethics and code/s of conduct
- organisation and government procedures

Assessment Conditions

This unit contains no specific industry-mandated assessment conditions. Guidance on suggested and recommended conditions and methods can be found in the Implementation Guide.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Companion Volume implementation guides are found in VETNet -
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Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

PSPPM402B Manage simple projects

Modification History

Release	TP Version	Comments
3	PSP12V1	Unit descriptor edited.
2	PSP04V4.2.	Layout adjusted. No changes to content.
1	PSP04V4.1	Primary release.

Unit Descriptor

This unit covers management of generally low risk projects that may be small scale and managed by one person or a person with a small team. It includes implementing project start-up activities, coordinating project implementation, monitoring the project and arranging follow-up activities. Contract management requirements are not included as this aspect is addressed by units of competency within the Competency field of *Procurement and Contract Management*.

In practice, managing simple projects overlaps with other generalist and specialist work activities such as applying government processes, using resources, gathering information, managing contracts etc.

This unit, and unit *PSPPM405A Administer simple projects*, are mutually exclusive. One or the other, but not both, may contribute to a qualification.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements are the essential outcomes of the unit of competency. Together, performance criteria specify the requirements for competent performance. Text in *bold italics* is explained in the Range Statement following.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Implement start-up activities

- 1.1 The *project plan* is updated with confirmed information for key dates and activities, resources and project governance details in accordance with the project implementation strategy.
- 1.2 Project *stakeholders'* understanding of and agreement to fulfil the project requirements and their roles and responsibilities are confirmed.
- 1.3 *Required systems* are established and maintained throughout the project in accordance with the project plan.
- 1.4 A working knowledge of *project management tools* is used to facilitate integration of project activities and achievement of project outcomes.

2. Coordinate project implementation

- 2.1 *Integration* and *management* of project activities are handled in accordance with the project plan.
- 2.2 Stakeholder input and expectations are managed and their commitment is maintained throughout the life of the project in accordance with organisational policy and procedures and the project plan.
- 2.3 Disagreements and disputes are resolved or referred to a higher authority in accordance with organisational policy and procedures.
- 2.4 Project *change proposals* are received and changes are recommended/made in accordance with the project plan, and documented in accordance with *policy and procedures*.

3. Monitor project

- 3.1 All aspects of the project are continually monitored and

ELEMENT**PERFORMANCE CRITERIA**

- corrective action is taken as necessary to maintain progress in accordance with the project plan.
- 3.2 Consultation and reporting mechanisms are applied in accordance with the communication plan when dealing with management, staff and/or contractors, steering committee members or other stakeholders.
- 3.3 Project governance plans and any related contracts are monitored, reviewed and amended as appropriate, and results are reported in accordance with the communication plan.
- 3.4 Project progress is monitored against agreed milestones in accordance with the project plan to provide a measure of performance throughout the life of the contract.
- 3.5 Programmed review of objectives and achievement is implemented in accordance with the project plan.
- 4. Arrange project follow-up activities**
- 4.1 Project deliverables are analysed against *specifications*, performance standards and project objectives, under broad guidance, and the results are reported to stakeholders.
- 4.2 An initial support package or product manual is produced, if required, to provide guidance for stakeholders who will be required to apply the project results.
- 4.3 The support package includes options for stakeholders to take account of environmental and cultural factors in applying project results.
- 4.4 Operational and support authorities are consulted to research any testing/trialling/building requirements resulting from the project, and evaluation of any recommendations are included in the project report.

Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

Skill requirements

Look for evidence that confirms skills in:

- leading and mentoring people to achieve project deliverables
- maintaining agreement of stakeholders and team members to timelines, roles and responsibilities
- communicating with stakeholders and team members using a range of communication styles to suit different audiences and purposes

- responding to diversity, including gender and disability
- using project management tools applicable to small scale or low risk projects
- applying ethical decision making and problem solving related to project management of small scale or low risk projects
- writing recommendations and preparing implementation support packages requiring precision of expression
- applying workplace safety procedures in line with project requirements
- accessing/preparing information electronically or in hard copy

Knowledge requirements

Look for evidence that confirms knowledge and understanding of:

- legislation, organisational policies and procedures that may impact on project management, for example:
 - public sector codes of ethics/conduct
 - occupational health and safety and environment requirements
 - project governance requirements
 - quality standards
- risk management
- procurement guidelines
- human resources
- equal employment opportunity, equity and diversity principles
- project management tools to suit a range of small scale or low risk projects
- project management principles
- organisational and political context

Evidence Guide

The Evidence Guide specifies the evidence required to demonstrate achievement in the unit of competency as a whole. It must be read in conjunction with the Unit descriptor, Performance Criteria, the Range Statement and the Assessment Guidelines for the Public Sector Training Package.

Units to be assessed together

- *Pre-requisite* units that must be achieved prior to this unit:*Nil*
- *Co-requisite* units that must be assessed with this unit:*Nil*
- *Co-assessed units* that may be assessed with this unit to increase the efficiency and realism of the assessment process include, but are not limited to:
 - PSPETHC401A Uphold and support the values and principles of public service
 - PSPGOV402B Deliver and monitor service to clients

- PSPGOV403B Use resources to achieve work unit goals
- PSPGOV411A Deal with conflict
- PSPGOV412A Use advanced workplace communication strategies
- PSPGOV422A Apply government processes
- PSPLEGN401A Encourage compliance with legislation in the public sector
- PSPPROC410A Administer contracts
- PSPPM401B Design simple projects
- PSPPM403B Close simple projects
- *Excluded units* that may not contribute to the same qualification as this unit:
 - PSPPM405A Administer simple projects

Overview of evidence requirements

In addition to integrated demonstration of the elements and their related performance criteria, look for evidence that confirms:

- the knowledge requirements of this unit
- the skill requirements of this unit
- application of the Employability Skills as they relate to this unit (see Employability Summaries in Qualifications Framework)
- simple projects managed in a range of (3 or more) contexts (or occasions, over time)

Resources required to carry out assessment

These resources include:

- legislation, guidelines, procedures and protocols relating to project management
- workplace project documentation
- scenarios and case studies
- examples of project management tools

Where and how to assess evidence

Valid assessment of this unit requires:

- a workplace environment or one that closely resembles normal work practice and replicates the range of conditions likely to be encountered when implementing projects, including coping with difficulties, irregularities and breakdowns in routine
- simple projects managed in a range of (3 or more) contexts (or occasions, over time)

Assessment methods should reflect workplace demands, such as literacy, and the needs of particular groups, such as:

- people with disabilities
- people from culturally and linguistically diverse

backgrounds

- Aboriginal and Torres Strait Islander people
- women
- young people
- older people
- people in rural and remote locations

Assessment methods suitable for valid and reliable assessment of this competency may include, but are not limited to, a combination of 2 or more of:

- case studies
- demonstration
- portfolios
- questioning
- scenarios
- authenticated evidence from the workplace and/or training courses

For consistency of assessment

Evidence must be gathered over time in a range of contexts to ensure the person can achieve the unit outcome and apply the competency in different situations or environments

Range Statement

The Range Statement provides information about the context in which the unit of competency is carried out. The variables cater for differences between States and Territories and the Commonwealth, and between organisations and workplaces. They allow for different work requirements, work practices and knowledge. The Range Statement also provides a focus for assessment. It relates to the unit as a whole. Text in *bold italics* in the Performance Criteria is explained here.

Project plan will include some or all of:

- acquisition strategies
- budget and financial management strategy
- contract management
- cost estimates
- evaluation criteria
- expected outcomes/measurable benefits of the project
- facilities
- inclusions and exclusions from project
- information/communication strategy
- intellectual property strategies
- milestones

- objectives
- outputs/project deliverables and their acceptance criteria
- people plan including human resource management and human resource development
- performance criteria/indicators
- project control mechanisms
- project implementation strategy
- project governance strategy
- purpose
- quality assurance
- quality control
- quality standards for project
- rationale
- required project resources
- resource management
- risk management
- roles and responsibilities
- schedule/timeline
- task/work breakdown structure (WBS)

Stakeholders may include:

- project sponsor/funding bodies
- clients or customers (internal and external)
- industry
- other agencies
- general public
- relevant interest groups
- unions
- functional areas
- the organisation's senior management
- Ministers
- project team
- steering committee members
- end user
- supplier/service provider

Required systems for project management may include:

- planning and monitoring system
- financial management including:
 - budget allocation/funding
 - income generated
 - expenditure
- recordkeeping for documented information such as:

Project management tools may include:

- correspondence
- quality data including survey, needs, test results
- contracts
- time allocated and spent on each aspect of the project
- progress reports
- performance reports against milestones
- project outcomes
- samples, prototypes, models
- risk analysis
- organisational project governance framework
- communications plan
- reporting framework
- project management software and other tools:
 - Gantt and bar charts
 - Program Evaluation and Review Technique (PERT) charts
 - Critical Path Method
 - cost schedule control system
 - logistics support analysis
 - life cycle cost analysis
 - spreadsheets
 - recording systems - electronic and manual

Integration of project activities may include:

- scope
- time
- cost
- quality
- human resources
- communications
- risk
- procurement

Management may include:

- scope management
- communication and reporting
- schedule management
- financial management
- quality management
- resources management
- people management
- logistics management
- risk management

Change proposals may include:

- contract management
- change management
- scope
- administration
- engineering, technical, technology changes
- time
- cost
- resources

Policy and procedures may include:

- government legislation (Federal, State and Local) affecting organisation's administration such as:
 - public sector management acts
 - financial management and accounting legislation and regulations
 - privacy legislation
- government and organisational guidelines and procedures relating to:
 - project governance
 - resourcing
 - security
 - strategic plans
 - recruitment
 - risk management
 - procurement guidelines
 - designation approvals
 - industrial agreements

Specifications may include:

- functional
- technical
- performance
- material

Unit Sector(s)

Not applicable.

Competency field

Project Management.

PSPPM502B Manage complex projects

Modification History

Release	TP Version	Comments
3	PSP12V1	Unit descriptor edited.
2	PSP04V4.2.	Layout adjusted. No changes to content.
1	PSP04V4.1	Primary release.

Unit Descriptor

This unit covers management of projects that may be reasonably complex in terms of scope, degree of risk, political, cultural and social factors that apply, consequences of failure and degree of control of the projects. It includes managing start-up, project implementation, project integration and follow-up activities. Contract management requirements are not included as this aspect is addressed by units of competency within the Competency field of *Procurement and Contract Management*.

In practice, managing complex projects overlaps with other generalist and specialist work activities such as acting ethically, coordinating resource allocation and usage, developing client services, undertaking research and analysis.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements are the essential outcomes of the unit of competency. Together, performance criteria specify the requirements for competent performance. Text in *bold italics* is explained in the Range Statement following.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Manage start-up activities	<p>1.1 <i>Project plans</i> are refined in consultation with steering committee and team members, and precise details are included for schedules of activities, milestones and resources.</p> <p>1.2 <i>Required systems</i> are established and maintained throughout the project in accordance with the complexity of the project and in line with the project plan.</p> <p>1.3 Project team members' understanding of and commitment to fulfilling the project requirements and their roles and responsibilities for the duration of the project are confirmed.</p> <p>1.4 <i>Project management tools</i> are selected and applied effectively to achieve project outcomes.</p>
2. Manage project implementation	<p>2.1 <i>Integration</i> and <i>management</i> of complex project activities are handled in accordance with the project plan.</p> <p>2.2 Leadership and required <i>development</i> are provided to the project team, and morale, stress levels and triggers are managed throughout the life of the project in accordance with organisational <i>policy and procedures</i>.</p> <p>2.3 <i>Stakeholder</i> input and expectations are managed throughout the project in accordance with the communication plan.</p> <p>2.4 Disagreements and disputes are resolved to the satisfaction of stakeholders or referred to a higher authority in accordance with organisational policy and procedures.</p> <p>2.5 Project <i>change proposals</i> are negotiated, agreed and documented in accordance with policy and procedures.</p>
3. Manage project integration	<p>3.1 All aspects of the project and related projects are integrated and links are established to ensure objectives are met in accordance with the project plan.</p>

ELEMENT**PERFORMANCE CRITERIA**

- 3.2 Consultation and reporting mechanisms are applied in accordance with the communication plan and staff and contractors are regularly consulted to discuss progress and ensure effective results.
- 3.3 Project integration is monitored, and management plans and any related contracts are reviewed and amended as appropriate, with results reported in accordance with mechanisms identified in the communication plan.
- 3.4 Ongoing progress is monitored against agreed milestones in accordance with the project plan to provide a measure of performance throughout the life of the project.
- 3.5 Programmed review of objectives and achievement is planned and implemented in accordance with the project plan.
- 4. Coordinate project follow-up activities**
- 4.1 Significant judgment is applied in the analysis of project deliverables against *specifications*, performance standards and project objectives, and the results are reported to stakeholders.
- 4.2 Support package arrangements are identified and offered to stakeholders who will be required to apply the project results.
- 4.3 Options for stakeholders to take account of environmental and cultural factors in applying the project results are included in the support package.
- 4.4 Operational and support authorities are consulted to investigate any testing/trialling/building and evaluation requirements resulting from the project, and funding implications estimated in project report.

Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

Skill requirements

Look for evidence that confirms skills in:

- leading and mentoring people to achieve project outcomes
- maintaining agreement of stakeholders and team members to timelines, roles and responsibilities
- negotiating with stakeholders and team members using communication styles to suit different audiences and purposes
- responding to diversity, including gender and disability
- using project management tools applicable to reasonably complex projects

- applying ethical decision making and problem solving related to project management of reasonably complex projects
- writing recommendations and preparing project reports requiring precision of expression
- applying workplace safety procedures in line with project requirements
- accessing/preparing information electronically or in hard copy

Knowledge requirements

Look for evidence that confirms knowledge and understanding of:

- legislation, organisational policies and procedures that may impact on project implementation, for example:
 - public sector codes of ethics/conduct
 - occupational health and safety and environmental and sustainability requirements
- project governance requirements
- quality standards
- risk management
- procurement guidelines
- financial management and budgetary framework
- human resources
- equal employment opportunity, equity and diversity principles
- project management tools to suit a range of reasonably complex projects in terms of scope, degree of risk, political, cultural and social factors that apply, consequences of failure and degree of control of the project
- project management systems
- organisational and political context
- critical analysis in a project management context
- business and commercial issues related to the projects managed

Evidence Guide

The Evidence Guide specifies the evidence required to demonstrate achievement in the unit of competency as a whole. It must be read in conjunction with the Unit descriptor, Performance Criteria, the Range Statement and the Assessment Guidelines for the Public Sector Training Package.

Units to be assessed together

- *Pre-requisite* units that must be achieved prior to this unit:*Nil*
- *Co-requisite* units that must be assessed with this unit:*Nil*
- *Co-assessed units* that may be assessed with this unit to increase the efficiency and realism of the assessment

process include, but are not limited to:

- PSPETHC501B Promote the values and ethos of public service
- PSPGOV502B Develop client services
- PSPGOV503B Coordinate resource allocation and usage
- PSPGOV504B Undertake research and analysis
- PSPGOV505A Promote diversity
- PSPPM501B Design complex projects
- PSPPM503B Close complex projects
- PSPPROC501A Manage contract risk
- PSPPROC503A Manage contract performance

Overview of evidence requirements

In addition to integrated demonstration of the elements and their related performance criteria, look for evidence that confirms:

- the knowledge requirements of this unit
- the skill requirements of this unit
- application of the Employability Skills as they relate to this unit (see Employability Summaries in Qualifications Framework)
- management of complex projects in a range of (3 or more) contexts (or occasions, over time)

Resources required to carry out assessment

These resources include:

- legislation, guidelines, procedures and protocols relating to project management in the organisation and the public sector
- workplace project documentation
- scenarios and case studies
- examples of project management tools

Where and how to assess evidence

Valid assessment of this unit requires:

- a workplace environment or one that closely resembles normal work practice and replicates the range of conditions likely to be encountered when managing complete projects, including coping with difficulties, irregularities and breakdowns in routine
- management of complex projects in a range of (3 or more) contexts (or occasions, over time)

Assessment methods should reflect workplace demands, such as literacy, and the needs of particular groups, such as:

- people with disabilities
- people from culturally and linguistically diverse backgrounds

- Aboriginal and Torres Strait Islander people
- women
- young people
- older people
- people in rural and remote locations

Assessment methods suitable for valid and reliable assessment of this competency may include, but are not limited to, a combination of 2 or more of:

- case studies
- demonstration
- portfolios
- questioning
- scenarios
- authenticated evidence from the workplace and/or training courses

For consistency of assessment

Evidence must be gathered over time in a range of contexts to ensure the person can achieve the unit outcome and apply the competency in different situations or environments

Range Statement

The Range Statement provides information about the context in which the unit of competency is carried out. The variables cater for differences between States and Territories and the Commonwealth, and between organisations and workplaces. They allow for different work requirements, work practices and knowledge. The Range Statement also provides a focus for assessment. It relates to the unit as a whole. Text in ***bold italics*** in the Performance Criteria is explained here.

Project plans will include some or all of:

- acquisition strategies
- budget and financial management strategy
- contract management
- cost estimates
- evaluation criteria
- expected outcomes/measurable benefits of the project
- facilities
- inclusions and exclusions from project
- information/communication strategy
- intellectual property strategies
- milestones
- objectives

- outputs/project deliverables and their acceptance criteria
- people plan including human resource management and human resource development
- performance criteria/indicators
- project control mechanisms
- project implementation strategy
- project governance strategy
- purpose
- quality assurance
- quality control
- quality standards for project
- rationale
- required project resources
- resource management
- risk management
- roles and responsibilities
- schedule/timeline
- task/work breakdown structure (WBS)

Required systems for project management may include:

- planning and monitoring system
- financial management including:
 - budget allocation/funding
 - income generated
 - expenditure
- recordkeeping for documented information such as:
 - correspondence
 - quality data including survey, needs, test results
 - contracts
- time allocated and spent on each aspect of the project
- progress reports
- performance reports against milestones
- project outcomes
- samples, prototypes, models

Project management tools may include:

- risk analysis
- organisational project governance framework
- communications plan
- reporting framework
- project management software and other tools:
 - Gantt and bar charts
 - Program Evaluation and Review Technique (PERT) charts

Integration of project activities may include:

- Critical Path Method
- cost schedule control system
- logistics support analysis
- life cycle cost analysis
- spreadsheets
- recording systems - electronic and manual
- scope
- time
- cost
- quality
- human resources
- communications
- risk
- procurement

Management may include:

- scope management
- communication and reporting
- schedule management
- financial management
- fraud control
- quality management
- resources management
- people management
- logistics management
- risk management
- contract management
- project implementation
- transition
- change management

Development may include:

- regular meetings
- feedback
- encouragement
- mentoring and coaching
- additional physical and human resources (within allocated budget) if and as required

Policy and procedures may include:

- government legislation (Federal, State and Local) affecting organisation's administration such as:
 - public sector management acts
 - financial management and accounting legislation and regulations

- privacy legislation
- government and organisational guidelines and procedures relating to:
 - project governance
 - resourcing
 - security
 - strategic plans
 - recruitment
 - risk management
 - procurement guidelines
 - designation approvals
 - industrial agreements
 - environment and sustainability

Stakeholders may include:

- project sponsor/funding bodies
- clients or customers (internal and external)
- industry
- other agencies
- general public
- relevant interest groups
- unions
- functional areas
- the organisation's senior management
- Ministers
- project team
- steering committee
- end user
- supplier/service provider

Contract change proposals may include:

- administration
- cost
- engineering, technical, technology changes
- resources
- scope
- specifications
- time

Specifications may include:

- functional
- technical
- performance
- material

Unit Sector(s)

Not applicable.

Competency field

Project Management.

PSPPM503B Close complex projects

Modification History

Release	TP Version	Comments
3	PSP12V1	Unit descriptor edited.
2	PSP04V4.2.	Layout adjusted. No changes to content.
1	PSP04V4.1	Primary release.

Unit Descriptor

This unit covers closure of projects that may be reasonably complex in terms of scope, degree of risk, political, cultural and social factors that apply, consequences of failure and degree of control of the projects. It includes reviewing project activity and managing project closure. Contract management requirements are not included as this aspect is addressed by units of competency within the Competency field of *Procurement and Contract Management*.

In practice, closing complex projects overlaps with other generalist and specialist work activities such as acting ethically, coordinating resource allocation and usage, developing client services, undertaking research and analysis.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements are the essential outcomes of the unit of competency. Together, performance criteria specify the requirements for competent performance. Text in *bold italics* is explained in the Range Statement following.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Review project activity	1.1 Evaluation of project process, supplier performance and achievement against objectives is undertaken in consultation with <i>stakeholders</i> and results are reported in accordance with the <i>project plan</i> evaluation framework and organisational <i>policy and procedures</i> .
	1.2 The extent to which clients needs were met is evaluated and action to rectify problems is identified and documented.
	1.3 Implications of project outputs/outcomes for policies and operating procedures are identified and recommendations are made for their amendment.
	1.4 Information obtained from the evaluation of the project is provided in accordance with organisational requirements so it may be used to improve relevant policy and practice.
2. Manage project closure	2.1 Any funding associated with the project is acquitted against project budget items, and financial records are checked for accuracy and completed in accordance with organisational procedures.
	2.2 Project wind-down is <i>managed</i> and <i>documentation</i> , records and <i>approvals</i> are handled in accordance with project plan and organisational policy and procedures.
	2.3 Project stakeholders are debriefed, and infrastructure and resources are redeployed in accordance with organisational policy and procedures.
	2.4 Project hand-over to user/s is completed in accordance with organisational procedures, and lessons learnt are documented and reported to stakeholders to assist in continuous improvement.
	2.5 Stakeholders are advised of procedures and authorities for initial support to apply project results where relevant, and strategies

ELEMENT

PERFORMANCE CRITERIA

are provided to manage long-term project momentum in accordance with organisational requirements.

Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

Skill requirements

Look for evidence that confirms skills in:

- analysing results and evaluating outcomes against objectives
- writing recommendations and preparing reports requiring precision of expression
- communicating with stakeholders and team members using a range of communication styles to suit different audiences and purposes
- responding to diversity, including gender and disability
- debriefing stakeholders and redeploying resources and infrastructure
- acquitting and reporting on resource expenditure including time and costs
- using project management tools applicable to reasonably complex projects
- applying workplace safety procedures in line with project requirements
- accessing/preparing information electronically or in hard copy

Knowledge requirements

Look for evidence that confirms knowledge and understanding of:

- legislation, organisational policies and procedures that may impact on project finalisation, for example:
 - public sector codes of ethics/conduct
 - occupational health and safety and environmental and sustainability requirements
 - project governance requirements
 - quality standards
 - risk management
 - procurement guidelines
 - financial management
 - human resource management and development
 - equal employment opportunity, equity and diversity principles
 - project specifications and objectives
- project management tools to suit a range of reasonably complex projects in

terms of scope, degree of risk, political, cultural and social factors that apply, consequences of failure and degree of control of the project

- project management principles and systems
- critical analysis in a project management context
- business and commercial issues related to the projects managed
- organisational and political environment

Evidence Guide

The Evidence Guide specifies the evidence required to demonstrate achievement in the unit of competency as a whole. It must be read in conjunction with the Unit descriptor, Performance Criteria, the Range Statement and the Assessment Guidelines for the Public Sector Training Package.

Units to be assessed together

- *Pre-requisite* units that must be achieved prior to this unit:*Nil*
- *Co-requisite* units that must be assessed with this unit:*Nil*
- *Co-assessed units* that may be assessed with this unit to increase the efficiency and realism of the assessment process include, but are not limited to:
 - PSPETHC501B Promote the values and ethos of public service
 - PSPGOV502B Develop client services
 - PSPGOV503B Coordinate resource allocation and usage
 - PSPGOV504B Undertake research and analysis
 - PSPGOV505A Promote diversity
 - PSPGOV507A Undertake negotiations
 - PSPGOV512A Use complex workplace communication strategies
 - PSPGOV517A Coordinate risk management
 - PSPPM501B Design complex projects
 - PSPPM502B Manage complex projects
 - PSPPROC504A Finalise contracts

Overview of evidence requirements

In addition to integrated demonstration of the elements and their related performance criteria, look for evidence that confirms:

- the knowledge requirements of this unit
- the skill requirements of this unit
- application of the Employability Skills as they relate to this unit (see Employability Summaries in Qualifications Framework)
- reviewing and closing complex projects in a range of (3 or

more) contexts (or occasions, over time)

Resources required to carry out assessment

These resources include:

- legislation, guidelines, procedures and protocols relating to project close-out
- workplace project documentation
- scenarios and case studies
- examples of project management tools suited to reasonably complex projects

Where and how to assess evidence

Valid assessment of this unit requires:

- a workplace environment or one that closely resembles normal work practice and replicates the range of conditions likely to be encountered when reviewing and closing complex projects, including coping with difficulties, irregularities and breakdowns in routine
- reviewing and closing complex projects in a range of (3 or more) contexts (or occasions, over time)

Assessment methods should reflect workplace demands, such as literacy, and the needs of particular groups, such as:

- people with disabilities
- people from culturally and linguistically diverse backgrounds
- Aboriginal and Torres Strait Islander people
- women
- young people
- older people
- people in rural and remote locations

Assessment methods suitable for valid and reliable assessment of this competency may include, but are not limited to, a combination of 2 or more of:

- case studies
- demonstration
- observation
- portfolios
- projects
- questioning
- scenarios
- simulation or role plays
- authenticated evidence from the workplace and/or training courses

For consistency of

Evidence must be gathered over time in a range of contexts to

assessment ensure the person can achieve the unit outcome and apply the competency in different situations or environments

Range Statement

The Range Statement provides information about the context in which the unit of competency is carried out. The variables cater for differences between States and Territories and the Commonwealth, and between organisations and workplaces. They allow for different work requirements, work practices and knowledge. The Range Statement also provides a focus for assessment. It relates to the unit as a whole. Text in ***bold italics*** in the Performance Criteria is explained here.

Stakeholders may include:

- project sponsor/funding bodies
- clients or customers (internal and external)
- industry
- other agencies
- general public
- relevant interest groups
- unions
- functional areas
- the organisation's senior management
- Ministers
- project team
- steering committee members
- end user
- supplier/service provider

Project plan will include some or all of:

- acquisition strategies
- budget and financial management strategy
- contract management
- cost estimates
- evaluation criteria
- expected outcomes/measurable benefits of the project
- facilities
- inclusions and exclusions from project
- information/communication strategy
- intellectual property strategies
- milestones
- objectives
- outputs/project deliverables and their acceptance criteria
- people plan including human resource management and

human resource development

- performance criteria/indicators
- project control mechanisms
- project implementation strategy
- project governance strategy
- purpose
- quality assurance
- quality control
- quality standards for project
- rationale
- required project resources
- resource management
- risk management
- roles and responsibilities
- schedule/timeline
- task/work breakdown structure (WBS)
- government legislation (Federal, State and Local) affecting organisation's administration such as:
 - public sector management acts
 - financial management and accounting legislation and regulations
 - privacy legislation
- government and organisational guidelines and procedures relating to:
 - project governance
 - resourcing
 - security
 - strategic plans
 - recruitment
 - risk management
 - procurement guidelines
 - designation approvals
 - industrial agreements
 - environment and sustainability

Policy and procedures
may include:

***Management of project
wind-down*** may include:

- risks
- issues
- assets
- consultants
- project team
- support staff

Documentation may include:

- project completion report
- supplier performance reports
- whole-of-life support plans
- transfer documents
- financial reports and acquittals
- evaluation reports
- transition plans

Approvals may be required from:

- project sponsor/funding body
- business owner of the project
- program manager
- line manager
- project governance office/personnel in the organisation
- chief executive officer, manager or management representative
- customer or client

Unit Sector(s)

Not applicable.

Competency field

Project Management.

PSPREG003 Apply regulatory powers

Modification History

Release	Comments
1	<p>This unit was released in PSP Public Sector Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to PSPREG401C Exercise regulatory powers.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with new standards • All PC transitioned from passive to active voice

Application

This unit describes the skills required to cover the exercise of powers under the organisation's enabling legislation and other relevant legislation for regulation, monitoring, inspection and investigation.

This unit applies to those working in public sector roles conducting regulatory activities.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work independently as part of a team, performing routine tasks involving a range of familiar and unfamiliar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Regulatory

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Establish regulatory powers	<p>1.1 Access and use current information relating to enabling legislation and regulations to maintain up-to-date knowledge of requirements.</p> <p>1.2 Confirm powers provided under the legislation and the boundaries of those powers.</p> <p>1.3 Identify and confirm compliance requirements of the legislation, related regulations, standards, codes of practice and policy.</p> <p>1.4 Identify and confirm acts and omissions that comprise non-compliance or offences under the legislation.</p>
2. Apply enabling legislation	<p>2.1 Identify and analyse circumstances where regulatory powers will be exercised to determine response or measures to apply.</p> <p>2.2 Identify circumstances requiring the exercise of regulatory powers that are outside own limits and refer to others.</p> <p>2.3 Identify risks associated with the exercise of regulatory powers and strategies to manage risks.</p> <p>2.4 Apply enabling legislation consistent with the boundaries and powers contained therein.</p>
3. Utilise other legislation and standards	<p>3.1 Identify other legislation and standards which impact on powers and confirm their requirements.</p> <p>3.2 Resolve or refer apparently conflicting legislative directions.</p>
4. Work with other organisations	<p>4.1 Identify organisations that have jurisdictions which may overlap and establish and maintain relationships.</p> <p>4.2 Identify organisations available to provide assistance and advice or take referrals and establish relationships for mutual benefit.</p> <p>4.3 Follow organisational protocols and procedures when working with other organisations.</p> <p>4.4 Refer compliance matters to other organisations for action when required.</p> <p>4.5 Follow lead agency protocols and/or lines of authority during operations involving more than one organisation.</p>

Foundation Skills

Foundation skills are embedded within the elements and performance criteria of this unit.

Unit Mapping Information

This unit supersedes and is equivalent to PSPREG401C Exercise regulatory powers.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

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Assessment Requirements for PSPREG003 Apply regulatory powers

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in PSP Public Sector Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none"> Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- undertaking research and analysis
- using information technology to access relevant legislation and procedures
- reading complex written materials and applying them to work practices
- using scanning techniques
- engaging in discussion involving exchanges of often complex oral information
- choosing regulatory responses and/or measures to fit the circumstances and justifying those responses against legislation, guidelines, policy and regulations

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- full range of regulatory powers and the limits to those powers
- enabling legislation
- offences under the legislation
- aspects of criminal law, administrative law, industrial law, contract law
- statutory time limits
- terminology used in legislation and procedures
- organisational policies, guidelines and regulations
- public sector legislation including, health and safety and environment relating to the exercise of regulatory powers

Assessment Conditions

This unit contains no specific industry-mandated assessment conditions. Guidance on suggested and recommended conditions and methods can be found in the Implementation Guide.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

PSPREG008 Act on non-compliance

Modification History

Release	Comments
1	<p>This unit was released in PSP Public Sector Training Package release 1.0 and meets the Standards for Training Packages.</p> <p>This unit supersedes and is equivalent to PSPREG405B Act on non-compliance.</p> <ul style="list-style-type: none"> • Unit code updated • Content and formatting updated to comply with new standards • All PC transitioned from passive to active voice

Application

This unit describes the skills required to issue advice, instructions, warnings, notices, fines and other actions in response to non-compliance situations. It includes attending situations where non-compliance is suspected or alleged, and taking action on non-compliance.

This unit applies to those working in public sector roles conducting regulatory activities.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work in as part of a team under routine guidance, performing routine tasks in a range of mostly familiar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Regulatory

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Attend situations where non-compliance is suspected/alleged	1.1 Follow procedure. 1.2 Maintain personal conduct. 1.3 Protect the safety of self and others. 1.4 Make prompt requests for assistance. 1.5 Carry out activities and actions in accordance with rules of evidence.
2. Take action on non-compliance	2.1 Consider mitigating circumstances. 2.2 Select action on non-compliance to match the seriousness of the offence. 2.3 Inform clients of the action, justification for it and their rights of appeal. 2.4 Take action in accordance with legal requirements. 2.5 Carry out personal actions and/or conduct in accordance with protocols and protect the rights and responsibilities of clients.

Foundation Skills

Foundation skills are embedded within the elements and performance criteria of this unit.

Unit Mapping Information

This unit supersedes and is equivalent to PSPREG405B Act on non-compliance.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

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Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

Assessment Requirements for PSPREG008 Act on non-compliance

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in PSP Public Sector Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none"> Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- undertaking negotiation and conflict resolution
- applying risk management and self-preservation techniques
- using judgment and decision making
- exchanging often complex oral information in a form to suit diverse audiences
- writing requiring accuracy of expression and formality in structure and format

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- public sector legislation
- organisational parameters for decision-making
- range of appropriate actions possible for different offences
- negotiation in the context of achieving compliance
- awareness of social and cultural issues

Assessment Conditions

This unit contains no specific industry-mandated assessment conditions. Guidance on suggested and recommended conditions and methods can be found in the Implementation Guide.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

PUACOM012B Liaise with media at a local level

Modification History

Release	TP Version	Comments
3	PUA12 V2.1	Editorial changes.
2	PUA12 V2	Layout adjusted. Application added.
1	PUA00 V8.1	Primary release.

Unit Descriptor

This unit covers the liaison with media at a low level incident and providing information about local events.

Application of the Unit

This unit applies to workers of local public safety groups who are delegated the responsibility to liaise with media in both emergency and non-emergency situations.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of

performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine media requirements	<p>1.1 <i>Organisational protocols</i> are followed when <i>liaising with the media</i>.</p> <p>1.2 The media's potential interest is assessed and arrangements are made to meet needs where appropriate.</p> <p>1.3 <i>Operational responsibilities</i> are balanced against the provision of information to the <i>media</i>.</p>
2. Provide information to the media	<p>2.1 A positive image of the <i>organisation</i> is maintained when liaising with the media.</p> <p>2.2 Every opportunity is used to promote the organisation, its services and personnel.</p> <p>2.3 <i>Relevant and succinct information</i> is supplied to media when operational responsibilities are under control and when organisational representative is available to talk to the media.</p>
3. Publicise an event	<p>3.1 Relationship is established with media contacts.</p> <p>3.2 <i>Event</i> details and support materials are gathered and presented in a logical, relevant and concise manner to the media.</p> <p>3.3 Information provided to media is recorded and maintained.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- attention to detail
- communicating facts in a fluent, clear and interesting manner
- empathy with victims and operational personnel
- liaison with media and other organisation personnel
- media presentation
- prioritisation between operational responsibilities and provision of information to

media

- public speaking
- retaining professionalism under duress

Required Knowledge

- organisational protocols relating to media liaison, for example legal and organisation requirements relating to:
 - confidentiality
 - libel
 - accuracy
 - discrimination
- role of media in disseminating information
- requirements of media to present information in a newsworthy/informative manner
- requirements of different media:
 - newspapers
 - magazines
 - radio
 - television (local, regional, national media)
- communication skills
- establishing media relationship

Evidence Guide

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential for this unit that competence be demonstrated in providing information to media whilst managing operational responsibilities.

Consistency in performance

Evidence should be gathered over a period of time in a range of actual or simulated workplace environments.

Context of and specific resources for assessment

Context of assessment

On the job or in a simulated work environment.

Specific resources for assessment

No special requirements.

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

- Organisation*** may include
- Fire
 - Police
 - State Emergency Service
 - Emergency Management

- Organisational protocols*** may include
- organisational policies and procedures
 - personal presentation being as neat as possible considering the operational circumstances
 - ensuring media liaison person is fully briefed and prepared
 - acknowledge support of other organisations
 - seeking advice from headquarters where appropriate
 - limiting comments on role of own service
 - relevant Federal and State legislation and regulations

- Liaising with the media*** may include
- print (local, community, daily newspapers, magazines)
 - television (live or pre-recorded)
 - radio (live or pre-recorded)

- Operational responsibilities*** may include
- preservation of life and property, which is the principal concern to all public safety personnel
 - presenting information relevant to the public

- Event*** may include
- long service to organisation
 - medal presentation
 - awarding of certificates
 - donations/sponsorships/fundraising
 - recruiting
 - new equipment
 - VIP visit
 - open day
 - training
 - unusual rescues
 - self help information

- Media's potential interest*** may include:
- enormous media event
 - standard report
 - human interest
 - in the public's interest

- Media's requirements*** may include:
- deadlines
 - capabilities

- visual and verbal requirements
- types of medium
- variation
- journalists
- amenities
- briefing area
- access to media liaison person
- bilingual personnel and bilingual information

Media may include:

- representatives from mainstream, community and ethnic television
- print and broadcast media

Organisational positive image may include:

- promote the relevance and efficiency of the service
- report the facts
- heroism of personnel
- organisational personnel are co-operative and responsive
- organisational personnel well presented
- handling media in most positive manner in even the most adverse conditions/circumstances

Media opportunity may include:

- opportunity to promote the services
- provide educational information to the public
- airplay

Relevant and succinct information may include:

- information that according to protocol is available for public release
- report facts and avoid speculation
- do not supply classified information
- use language that can be readily understood by all to avoid misinterpretation

Unit Sector(s)

Not applicable.

PUAEMR026 Treat operational risk

Modification History

Release	TP Version	Comments
2	PUA12 V2.1	Editorial changes.
1	PUA12 V2	New unit.

Unit Descriptor

This unit describes the outcomes required to identify, plan and implement treatment options in order to reduce risk.

Application of the Unit

This unit applies to people working in a relatively simple and routine workplace in which they use the organisation's policy and procedures. They would normally have local supervisory/management responsibility and will apply known solutions to a variety of predictable problems.

No licencing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

PUAEMR027 Assess operational risk

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the Performance Criteria describe the required performance

essential outcomes of a Unit of Competency.

needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Make risk decision	<p>1.1 Calculated level of risk is compared to the established <i>risk criteria</i> and determined to be acceptable or unacceptable in consultation with the supervisor.</p> <p>1.2 Risk that is determined as unacceptable is documented and noted for treatment.</p>
2. Identify and select treatment options	<p>2.1 <i>Treatment options</i> of known risks are identified and confirmed as contained in <i>organisational standards and guidelines</i> or supervisor's guidance.</p> <p>2.2 Treatment options under consideration are evaluated for <i>effectiveness</i> within the given context.</p> <p>2.3 Selected treatment options are documented and communicated in accordance with organisational policies and procedures.</p>
3. Implement treatment options	<p>3.1 <i>Treatment plans</i> incorporating selected options are implemented in accordance with organisational policies and procedures.</p> <p>3.2 Treatment plans are communicated in the workplace in accordance with organisational policies and procedures.</p>
4. Monitor and review risk and the process	<p>4.1 Effectiveness and efficiency of the treatment plan is <i>monitored</i>, reviewed and recorded in accordance with organisational policies and procedures to ensure compliance and validity.</p> <p>4.2 Residual risk is calculated and communicated to supervisors so that a decision can be made whether to accept this risk or to re-establish the risk management process.</p> <p>4.3 Treatments are adjusted and communicated following the review process.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- communicating effectively with personnel at all levels of organisation and risk management specialists
- preparing more detailed reports for a range of target groups including OHS or risk committee, OHS representatives, managers and supervisors
- managing own tasks within time frame
- using consultation and negotiation skills, particularly in relation to developing plans and implementing and monitoring designated actions
- contributing to the assessment of the resources needed to systematically treat risks and, where appropriate, access resources
- manage simple project implementation
- interpreting information and data to identify areas for improvement
- using language and literacy skills appropriate to the workgroup and the task
- using basic computer and information technology skills to access internal and external information and data on risk
- undertaking basic research to access relevant information and data
- paying attention to detail when making observations and recording outcomes

Required Knowledge

- organisational policies, procedures and guidelines relevant to risk
- risk management terminology and language in accordance with relevant standards (risk, hazard, risk assessment, risk management and risk treatment)
- specified methods or tools endorsed by an organisation and provided for use in the identification and analysis of risk
- treatment options for risks relevant in the workplace
- team work principles and strategies
- basic project management strategies
- techniques for giving and receiving feedback in a constructive manner
- concept of common law duty of care
- structure and forms of legislation including regulations, codes of practice, associated standards and guidance material
- techniques/methods used to identify or analyse information
- verbal and non-verbal communication techniques including language style, active listening

Evidence Guide

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to define and identify risk language, definitions and terminology. Evidence must also be provided of stakeholders' involvement throughout the treatment process and that an informed analysis and selection of treatment options has been undertaken using the methodology and procedures approved by the organisation.

Consistency in performance

Competency should be demonstrated by gathering evidence over a range of workplace scenarios, using a variety of tools and methodology and should include the assessment of a variety of risks that may adversely impact on the organisation.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or under conditions that closely simulate the workplace.

Specific resources for assessment

Access to:

- organisational documentation
- relevant organisational standards
- appropriate tools and methods used within the organisation
- simulated or real-world workplace

Guidance information for assessment

Valid assessment of this unit requires:

- a workplace environment or one that closely resembles normal work practice and replicates the range of conditions likely to be encountered when applying the principles of treating operational risk, including coping with difficulties, irregularities and breakdowns in routine
- application of the principles of treating operational risk in a range of 3 or more contexts or occasions, over time

Assessment methods should reflect but not exceed workplace demands, such as literacy, and the needs of individuals who might be disadvantaged.

Assessment methods suitable for valid and reliable assessment of this unit must use authenticated evidence from the workplace and/or training courses and should include a combination of two or more of:

- workplace projects
- simulation or role plays
- case studies and scenarios
- observation
- portfolios

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

- Risk criteria*** may include:
- the nature and types of causes and consequences that can occur and how they will be measured
 - how likelihood will be defined
 - the timeframe(s) of the likelihood and/or consequence(s)
 - how the level of risk is to be determined
 - the views of stakeholders
 - the level at which risk becomes acceptable or tolerable
 - whether combinations of multiple risks should be taken into account and, if so, how and which combinations should be considered
- Treatment options*** may include:
- avoidance of the risk
 - removing a risk source
 - changing the likelihood of
 - an initiating event or source of risk occurring
 - a hazard impacting on elements at risk
 - changing the consequences of an identified hazard impact
 - sharing the risk
 - retaining the risk based on an informed decision
- Organisational standards and guidelines*** may include:
- AS/NZS ISO 31000:2009 Risk management—Principles and guidelines
 - regulatory or legislative requirements
 - environmental protection and sustainability regulations
 - industry standards and codes of practice
 - organisational charter/business plan
 - organisational OHS, risk management or resilience

- policies or operating procedures
- Effectiveness** may include:
- benefits to the individual
 - benefits to the organisation
 - cost benefits resulting from the implementation of the treatment
 - cost of implementing the treatment option
- Treatment plans** may include:
- budgeting
 - expected outcome of treatments
 - performance measures
 - responsibilities
 - review process to be set in place
 - schedules
- Monitored** may include:
- critical observation
 - identification of changes over time
 - regular checking
 - regular recording

Unit Sector(s)

Not applicable.

Custom Content Section

Not applicable.

PUAEMR027 Assess operational risk

Modification History

PUAEMR027 Release 1: Primary release.

Unit Descriptor

This unit describes the outcomes required to identify and assess risk in an operational environment.

No licencing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

This competency applies to workers at a relatively simple and routine level, in which they use established organisational policy and procedures. Workers would normally have local supervisory or management responsibility and apply known solutions to a variety of predictable problems.

The unit covers the first four steps of the risk management process and provides the skills and knowledge required to conduct a risk assessment.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Establish the risk context	<p>1.1 Objectives and scope are identified using organisational risk management standards and guidelines.</p> <p>1.2 Risk criteria are identified and confirmed as contained in organisational policies, procedures or supervisor guidance.</p> <p>1.3 Structure for the planning required to conduct a risk assessment is determined.</p> <p>1.4 Stakeholder aims and objectives are identified and recorded in accordance with workplace procedures and guidelines.</p>
2. Identify risk	<p>2.1 All possible sources of risk which may affect the situation or objectives are identified and recorded in consultation with stakeholders.</p> <p>2.2 Risks are identified using a specified methodology or tool in accordance with workplace procedures and guidelines.</p> <p>2.3 Risk statements describing consequences are generated.</p>
3. Analyse risk	<p>3.1 Risks are analysed by estimating the likelihood of particular consequences occurring.</p> <p>3.2 Levels of risk are determined, documented and communicated in accordance with organisational policies and procedures.</p>
4. Evaluate risk	<p>4.1 Levels of risk are prioritised for treatment.</p> <p>4.2 Calculated level of risk is compared to the established risk evaluation criteria, and communicated to supervisors.</p> <p>4.3 Risks are monitored and reviewed until appropriate treatment measures have been implemented.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- communicating effectively with risk management specialists and people at all organisational levels
- preparing more detailed reports for a range of target groups including OHS or risk committee, OHS representatives, managers and supervisors
- managing own tasks within time frame
- using consultation and negotiation skills, particularly in relation to developing plans and implementing and monitoring designated actions
- contributing to the assessment of the resources needed to systematically assess risks and, where appropriate, access resources
- analysing relevant workplace information and data, and make observations including of workplace tasks and interactions between people, their activities, equipment, environment and systems
- carrying out simple arithmetical calculations (e.g. % change), and produce graphs of workplace information and data to identify trends and recognise limitations
- interpreting information and data to identify areas for improvement
- using language and literacy skills appropriate to the workgroup and the task
- using basic computer and information technology skills to access internal and external information and data on risk
- undertaking basic research to access relevant information and data
- paying attention to detail when making observations and recording outcomes.

Required Knowledge

- organisational policies, procedures and guidelines relevant to risk
- risk management terminology and language in accordance with relevant standards
- specified methods or tools endorsed by an organisation and provided for use in the identification and analysis of risk
- team work principles and strategies
- techniques for giving and receiving feedback in a constructive manner
- concept of common law duty of care as applies in emergency risk management context
- structure and forms of legislation including regulations, codes of practice, associated standards and guidance material
- roles and responsibilities under OHS legislation of employees, including supervisors and contractors
- techniques/methods used to identify or analyse information
- verbal and non-verbal communication techniques including language style, active listening

Evidence Guide

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to define and identify risk language, definitions and terminology. Evidence must also be provided of stakeholder's involvement throughout the process and that an informed analysis of the risks has been undertaken using tools and methodology approved by the organisation.

Consistency in performance

Competency should be demonstrated by gathering evidence over a range of workplace scenarios, using a variety of tools and methodology and should include the assessment of a variety of risks that may adversely impact on the organisation.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or under conditions that closely simulate the workplace

Specific resources for assessment

Access to:

- organisational documentation
- relevant organisational standards
- appropriate tools and methods used within the organisation
- simulated or real-world workplaces

Guidance information for assessment

Valid assessment of this unit requires:

- a workplace environment or one that closely resembles normal work practice and replicates the range of conditions likely to be encountered when applying the principles of operational risk assessment, including coping with difficulties, irregularities and breakdowns in routine
- application of the principles of operational risk assessment in a range of 3 or more contexts or occasions, over time.

Assessment methods should reflect but not exceed workplace demands, such as literacy, and the needs of individuals who might be disadvantaged.

Assessment methods suitable for valid and reliable assessment of this unit must use authenticated evidence from the workplace and/or training courses and may include a combination of two or more of:

- workplace projects

- simulation or role plays
- case studies and scenarios
- observation
- portfolios

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

Organisational risk management standards and guidelines may include:

- Standard AS/NZS/ISO 31000:2009 Risk Management—Principles and Guidelines
- regulatory or legislative requirements e.g. ohs act
- environmental protection and sustainability regulations
- industry standards and codes of practice
- organisational charter/business plan
- organisational ohs, risk management or resilience policies or operating procedures

Risk criteria may include:

- the nature and types of causes and consequences that can occur and how they will be measured
- how likelihood will be defined
- the timeframe(s) of the likelihood and/or consequence(s)
- how the level of risk is to be determined
- the views of stakeholders
- the level at which risk becomes acceptable or tolerable
- whether combinations of multiple risks should be taken into account and, if so, how and which combinations should be considered

Structure for the planning may include:

- documentation required
- analysis tools which are required to conduct the assessment
- approach taken to conduct the assessment
- depth of assessment

Specified methodology or tools may include:

- a risk matrix
- analysis of risk registers
- brainstorming
- business continuity planning
- examining any available data e.g. audit

results/incident reports

- expert judgement
- focus groups
- nomogram
- scenario analysis

Unit Sector(s)

Not applicable.

PUAFIR204B Respond to wildfire

Modification History

Release	TP Version	Comments
2	PUA12 V2	Content reviewed Application of the Unit added Method of assessment added
1	PUA00 V8.1	Primary release on TGA

Unit Descriptor

This unit covers the competency required to respond to a wildfire, work as a safe and situationally-aware member of a crew to attack and extinguish a fire, participate in mop-up and patrol operations, and prepare equipment for the next crew.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

This unit applies to personnel who work as a member of a team. Work at this level is undertaken under direct supervision and instruction.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

PUAFIR215 Prevent injury

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

- | | |
|--|---|
| <p>1. Prepare to respond to fire</p> | <p>1.1 Information about location of fire, <i>type of wildfire</i> and most effective route to the fire is obtained, taking into account local conditions.</p> <p>1.2 Personal protective clothing and equipment, and food and fluid requirements are identified and relevant preparations undertaken prior to departure as per organisational standards.</p> |
| <p>2. Proceed to fire</p> | <p>2.1 Location of the fire and <i>type of fuel</i> is confirmed on approach.</p> <p>2.2 Access to the area is gained safely without damage to vehicles and equipment, and minimum damage to the environment.</p> <p>2.3 <i>Evidence relevant to fire cause</i> is noted and brought to the attention of the supervisor.</p> <p>2.4 <i>Indicators of fire behaviour</i> are observed and communicated to supervisor.</p> |
| <p>3. Obtain and use firefighting equipment and extinguishing media</p> | <p>3.1 Nominated <i>extinguishing media</i> and <i>firefighting equipment</i> are located and obtained.</p> <p>3.2 Equipment is used in accordance with organisational and manufacturer's procedures.</p> |
| <p>4. Combat wildfire</p> | <p>4.1 Instructions are received, <i>firefighting strategies and tactics</i> are confirmed and implemented in accordance with organisational safe work practices and procedures.</p> <p>4.2 <i>Suppression techniques</i>, equipment and extinguishing media appropriate to wildfire conditions are used.</p> <p>4.3 Control lines are prepared in accordance with supervisor's instructions.</p> <p>4.4 Equipment is positioned, made ready for use and protected from damage in accordance with</p> |

- organisational procedures.
- 4.5 Fire is attacked taking into account *wildfire hazards* as directed and in accordance with organisational procedures.
- 4.6 Evidence of fire cause and area of fire origin are protected.
- 4.7 *Communication* is maintained at all times in accordance with organisational procedures.
- 5. Observe and react to wildfire and weather conditions**
- 5.1 Conditions at the fire are observed and their effect on fire behaviour and development are noted and reported to supervisor.
- 5.2 *Weather conditions* and changes to fire behaviour are observed and reported to supervisor.
- 5.3 *Variations in topography, fuel features* and fuel arrangements are observed and effect on fire behaviour is reported to supervisor as required.
- 5.4 *Escape routes* and *safety zones* are identified and maintained at all times.
- 5.5 Communication is maintained with other firefighting personnel and supervisor throughout operational activities.
- 6. Participate in mop-up and patrol activities and support operations**
- 6.1 Mopping-up activities are carried out in accordance with organisational procedures.
- 6.2 Patrol of the perimeter or sector of the fire is maintained in accordance with organisational procedures.
- 6.3 Activities to *support firefighting operations* are carried out in accordance with organisational procedures.
- 7. Recover and store equipment**
- 7.1 Equipment and *consumables* are recovered as directed.
- 7.2 Equipment is stored in accordance with organisational procedures.
- 7.3 Cleaning and maintenance are carried out in accordance with organisational procedures.
- 7.4 Damaged or lost equipment is reported in accordance with organisational procedures.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- detect hot spots, hazardous trees, unsecured wildfire perimeter
- undertake dry and wet wildfire attack
- use wildfire control tools and equipment
- work as a member of a team

Required Knowledge

- communication on the fireground
- extinguishing media, water, foam, suppressants
- fire behaviour (fuel, weather and topography)
- health and fitness requirements
- hygiene and wellbeing
- organisational operating procedures
- safe work practices
- wildfire control tactics and techniques
- wildfire hazards, safety techniques

Evidence Guide

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to:

- react to changing wildfire behaviour due to changes in weather, topography and fuel conditions
- use firefighting equipment
- participate in dry wildfire control
- use extinguishing media in wildfire control
- maintain health and safety of self, other workers and people in the immediate work area
- participate in mop-up and patrol
- undertake operational activities safely

Consistency in performance

Competency should be demonstrated over time in a range of actual and/or simulated field-based workplace environments.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in an agency approved simulated and/or field-based workplace environment.

Specific resources for assessment

Access is required to:

- controlled or contained fires and/or simulated workplace environment
- firefighting equipment and extinguishing media

Method of assessment

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an industry-approved simulated work environment. Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors
- written or oral questions

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. <i>Bold italicised</i> wording in the Performance Criteria is detailed below.	
<i>Type of wildfire</i> must include:	<ul style="list-style-type: none"> • crown • ground • surface
<i>Type of fuel</i> may include:	<ul style="list-style-type: none"> • crop • forest • grass • heath • peat, coal and combustible soils • plantation • scrub
<i>Evidence relevant to fire cause</i> may include:	<ul style="list-style-type: none"> • fresh vehicles tracks • items or objects at scene • nature and behaviour of fire at the scene upon arrival

	<ul style="list-style-type: none"> • nature and colour of smoke and number of columns • people and vehicles leaving the scene • whether gates on access routes to the fire are closed, opened or locked
Indicators of fire behaviour may include:	<ul style="list-style-type: none"> • flame height and length • noise • rate of spread • smoke colour and density • spotting
Extinguishing media must include:	<ul style="list-style-type: none"> • water
and may also include:	<ul style="list-style-type: none"> • Class A foam • retardants • soil • wetting agents
Firefighting equipment must include:	<ul style="list-style-type: none"> • drip torch • hand tools • hose and small gear • knap sack • pump • tanker
and may also include:	<ul style="list-style-type: none"> • chainsaw • ropes and lines
Firefighting strategies must include:	<ul style="list-style-type: none"> • defensive • direct attack • indirect attack • offensive: • parallel attack
Firefighting tactics may include:	<ul style="list-style-type: none"> • backburning • burning out • control line construction • mopping-up • patrol • use of extinguishing media
Suppression techniques may include:	<ul style="list-style-type: none"> • dry firefighting • wet firefighting
Wildfire hazards may include:	<ul style="list-style-type: none"> • burns • disorientation • electrical installations and powerlines • embers

	<ul style="list-style-type: none"> • falling branches/trees • fatigue • heat related illness • lack of visibility • machinery/vehicle • manual handling • noise • radiant heat • smoke inhalation • snake or insect bite • sprain or fracture • trips and falls • water bombing operations
Communication may include:	<ul style="list-style-type: none"> • paging • personal contact • phone • radio • written notes
Weather conditions may include:	<ul style="list-style-type: none"> • atmospheric stability • relative humidity • temperature • variations to wind speed and direction
Variations in topography may include:	<ul style="list-style-type: none"> • aspect • elevation • landscape features • slope
Fuel features must include:	<ul style="list-style-type: none"> • arrangement/distribution • moisture content • quantity • size • type
Escape routes may include:	<ul style="list-style-type: none"> • prepared tracks • roads • trails • waterways
Safety zones may include:	<ul style="list-style-type: none"> • bare ground • burnt areas • clearings • rivers • site of a recent wildfire or prescribed burn • static water bodies

<i>Support firefighting operations</i> may include:	<ul style="list-style-type: none">• providing/transporting food, water and equipment for an incident• working with earth moving equipment such as bulldozer, grader, tractor with blade
<i>Consumables</i> may include:	<ul style="list-style-type: none">• flagging tape• fuel• rubbish• signs

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil

PUAFIR303B Suppress wildfire

Modification History

Release	TP Version	Comments
2	PUA12 V2	Application of the Unit added Unit revised to reflect current work requirements Context of Assessment revised Method of assessment added
1	PUA00 V8.1	Primary release on TGA

Unit Descriptor

This unit covers the competency required to work as a situation-aware member of a crew to apply appropriate fire control strategies and safe work practices to extinguish a wildfire, participate in mop-up and patrol operations, and prepare equipment for the next crew.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

This unit applies to personnel who work as a member of a team. Work at this level is often undertaken without direct supervision and instruction. There may be some level of supervision of other members of the crew at this level.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

PUAFIR204B Respond to wildfire

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

- | | |
|--|--|
| 1. Receive and report details of wildfire | <p>1.1 Details of the wildfire including its location, <i>type</i>, behaviour and development are received and recorded.</p> <p>1.2 Fire details are reported in accordance with organisational procedures.</p> |
| 2. Prepare to respond to fire | <p>2.1 Location of the wildfire is confirmed and the safest effective <i>access</i> route is determined.</p> <p>2.2 <i>Personal protective clothing and equipment</i>, apparel, food and water are obtained before departure, in accordance with organisational requirements.</p> <p>2.3 Most appropriate method of transport to the wildfire is selected and used.</p> |
| 3. Proceed to fire | <p>3.1 Location of the wildfire is confirmed by observation or from instructions while on approach.</p> <p>3.2 Access to area is determined and achieved without injury to personnel or damage to vehicles, equipment or <i>environmentally sensitive areas</i>.</p> <p>3.3 Evidence observed on approach relevant to wildfire cause is noted and brought to the attention of the appropriate authority.</p> <p>3.4 <i>Navigational aids</i> are used for planning and operational purposes.</p> |
| 4. Protect people and assets | <p>4.1 As far as conditions allow, number, location and safety of people and <i>assets</i> in the threatened area is determined and assessed.</p> |

- 4.2 Appropriate **protective procedures** are implemented under direction, to protect persons in the path of a wildfire.
- 4.3 Access by the public and personnel to hazardous locations is controlled as directed and in accordance with organisational procedures.
- 4.4 Defensibility of property is considered and, if appropriate, assistance is provided to help occupiers.
- 4.5 Safety of people and assets in the threatened area is monitored during the course of the fire.
- 4.6 Safety of people and security of assets in the area is checked and reported after the passing of the fire.

5. Combat wildfire

- 5.1 Access to the area of operations is gained in the safest and most effective manner.
- 5.2 Notification of arrival and appropriate report is provided.
- 5.3 Briefing is received including area of operations, strategies and tactics to be employed.
- 5.4 Most suitable location to commence wildfire control operations is selected.
- 5.5 **Firefighting media and equipment** are selected and used effectively and safely in accordance with organisational procedures.
- 5.6 **Fire hazards** are identified and action taken to minimise the risk of injury to the public, personnel and self.
- 5.7 **Firefighting strategies** are implemented to achieve objectives in accordance with organisational procedures.
- 5.8 Fire control activities are undertaken to minimise overall damage and impact on assets and the environment.
- 5.9 **Potential fire behaviour** is considered and acted upon to ensure safety and achievement of objective.
- 5.10 **Fuel, weather and topographical factors** are observed and potential fire behaviour anticipated.
- 5.11 Communication is maintained with supervisor and other firefighters in the work area.
- 5.12 **Fire reports** are provided to supervisor as required.
- 5.13 Area of origin and **evidence of fire cause** are protected and brought to attention of supervisor or relevant authority.
- 5.14 **Escape routes and safety zones** are established

- and communicated to personnel.
- 6. Conduct mop-up and patrol activities**
- 6.1 Mop-up activities are carried out in accordance with guidelines and conditions.
- 6.2 Patrol of the perimeter or sector of the fire is maintained in accordance with organisational procedures and guidelines.
- 7. Recover and maintain equipment**
- 7.1 Equipment is made up and made ready for operational use in accordance with organisational procedures.
- 7.2 Damaged or missing equipment is replaced, recorded and/or reported in accordance with organisational procedures.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- communicate effectively in writing and orally
- detect hot spots and hazardous trees
- interpret fire weather, fuels and terrain and predict the likely impact on fire behaviour
- mop-up
- read maps
- receive briefings and confirm instructions
- undertake back burning and burning out
- use wildfire control tools and equipment
- work as part of a team

Required Knowledge

- defensive/offensive firefighting strategies and tactics:
 - asset protection
 - backburning and burning out
 - control lines and firebreaks
 - defensible space
 - direct, indirect, parallel attack
 - fire attack procedures
 - lighting patterns
 - standard operating procedures; reporting; patrol; mop-up
 - wet, dry firefighting
- fire behaviour:

- fire development
- flame height and intensity
- rate of spread,
- junction zones
- spotting
- firefighting protocols
- fireground hazards
- fire weather conditions and impact on fire behaviour:
 - atmospheric stability
 - relative humidity
 - temperature
 - wind speed and direction
- fuel and its impact on fire behaviour
 - moisture content, quantity, type, arrangement and distribution,
 - size, drought effect, curing
- organisational first aid requirements
- organisational procedures for dealing with injury
- protection of area of origin and evidence of fire cause
- safety near vehicles and machines
- terrain and physical feature and their impact on fire behaviour and suppression:
 - aspect
 - fuel variations
 - slope
 - weather variations

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to:

- anticipate and react to changing wildfire behaviour
- observe and react to weather behaviour
- accurately assess whether or not it is safe to defend assets
- undertake dry wildfire control activity
- monitor effectiveness of tactics
- use firefighting equipment and extinguishing media
- maintain safety and health of self, other workers and

- people in the wildfire area
- use communication equipment
- read maps
- protect area of origin and evidence of fire cause

Consistency in performance

Competency should be demonstrated over time in a range of actual and/or simulated workplace environments.

Context of and specific resources for assessment

Context of assessment

Evidence of performance at a wildfire or prescribed burn is required for attainment of Elements 5 and 6 of this unit.

The remaining elements should be assessed in an agency approved field-based environment or simulation.

Specific resources for assessment

Access is required to:

- access to wildfire or prescribed burns and/or approved field-based environment
- firefighting equipment and extinguishing media

Method of assessment

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an agency-approved simulated work environment. Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors
- written or oral questions

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for

different work environments and situations that may affect performance. <i>Bold italicised</i> wording in the Performance Criteria is detailed below.	
<i>Types</i> must include:	<ul style="list-style-type: none"> • crown • ground • surface
<i>Access</i> may include:	<ul style="list-style-type: none"> • aircraft • boat • foot • vehicle
<i>Environmentally sensitive areas</i> may include:	<ul style="list-style-type: none"> • areas of: <ul style="list-style-type: none"> • fragile soils • native flora and fauna • rare and endangered species • threat to water quality
<i>Navigational aids</i> must include:	<ul style="list-style-type: none"> • maps
and may also include:	<ul style="list-style-type: none"> • aerial photographs • compass • global positioning systems
<i>Assets</i> may include:	<ul style="list-style-type: none"> • area of rare or sensitive flora and fauna • buildings • culturally significant sites • crops • plantations • property • public lands • stock • utilities and infrastructure (rail, power and telephone lines, water supply structures, communications towers, bridges)
<i>Protective procedures</i> may include:	<ul style="list-style-type: none"> • alerts and warnings • in-situ protection • relocation
<i>Firefighting media</i> must include:	<ul style="list-style-type: none"> • water
and may also include:	<ul style="list-style-type: none"> • Class A foam • earth • fire suppressants (short and long term) • retardants

	<ul style="list-style-type: none"> • wetting agent
Firefighting equipment must include:	<ul style="list-style-type: none"> • driptorch • hand tools • hose and small gear • pump • tanker
and may also include:	<ul style="list-style-type: none"> • aircraft • chainsaw • earth moving machinery • knap sack • ropes and lines
Fire hazards must include:	<ul style="list-style-type: none"> • burns • disorientation • environmental • falling branches and trees • falling objects • fatigue • heat-related illness (heat exhaustion and dehydration) • lack of visibility • manual handling • mine shafts • rolling objects • smoke inhalation • snake or insect bite • sprain or fracture • trips/falls • water bombing operation
Firefighting strategies must include:	<ul style="list-style-type: none"> • combination attack • combined strategy • defensive strategy • direct attack • indirect attack • mop-up • offensive strategy • parallel attack • patrol
Potential fire behaviour may include:	<ul style="list-style-type: none"> • fire development • flame height and intensity • fuel load and arrangement • rate of spread

	<ul style="list-style-type: none"> • spotting • change due to terrain, topography • change due to weather conditions - winds, fire whirls
Fuel may include:	<ul style="list-style-type: none"> • crop • forest • grass • heath • plantation: <ul style="list-style-type: none"> • stage 1 – post establishment • stage 2 – pre-canopy closure • stage 3a – canopy closure (unpruned) • stage 3b – canopy closure (pruned) • stage 4 – thinned • stage 5 – mature • stage 6 – harvesting/clear felling • scrub
Fuel factors which may impact on fire development must include:	<ul style="list-style-type: none"> • arrangement/distribution • effects of drought • moisture content • quantity • seasonal effects • size • topography • type
Weather factors which may impact on fire development must include:	<ul style="list-style-type: none"> • anabatic winds • atmospheric stability • cold fronts • diurnal variations • katabatic winds • land breezes • local effects • relative humidity • sea breezes • temperature • vegetation edge effects • wind changes • wind direction and speed
Topographical factors which may impact on fire development must include:	<ul style="list-style-type: none"> • aspect • elevation • local wind effects

	<ul style="list-style-type: none"> • slope • wind turbulence
<i>Fire reports</i> may include:	<ul style="list-style-type: none"> • effectiveness of strategies and tactics • fire behaviour • number and status of resources • safety and hazards • weather • welfare of personnel • work achieved and required
<i>Evidence of fire cause</i> may include:	<ul style="list-style-type: none"> • fresh vehicles tracks • nature and behaviour of fire at the scene upon arrival • nature and colour of smoke and number of columns • people and vehicles leaving the scene • whether gates on access routes to the fire are closed, opened or locked
<i>Escape routes</i> may include:	<ul style="list-style-type: none"> • prepared tracks • roads • trails • waterways
<i>Safety zones</i> may include:	<ul style="list-style-type: none"> • bare ground • burnt areas • clearings • rivers • site of a recent wildfire or prescribed burn • static water bodies

Unit Sector(s)

Not applicable.

PUAFIR406B Develop prescribed burning plans

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the development of plans for prescribed burning in areas for which the organisation is responsible to meet defined objectives through a range of strategies.

Application of the Unit

Application of the Unit

The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s

PUAFIR303B Suppress wildfire

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify target areas and burn objectives	<p>1.1 Areas requiring prescribed burning are identified in accordance with the organisation's procedures</p> <p>1.2 Burn objectives are developed in accordance with the organisation's procedures</p>
2. Prepare plans for prescribed burning	<p>2.1 Strategies and tactics which are suitable for the location and will meet objectives, are nominated in accordance with organisational procedures and programs</p> <p>2.2 Consultation with other <i>interested parties</i>, during the planning process, is conducted in accordance with organisational procedures</p> <p>2.3 Proposed strategies and tactics take into account the safety of persons and <i>protection of property, assets</i> and the <i>environment</i></p> <p>2.4 Resources required and conditions for implementation of the strategies and tactics, are specified in accordance with organisational procedures</p>
3. Monitor implementation of prescribed burning plans	<p>3.1 Progress of plan implementation is monitored for compliance with organisational requirements</p> <p>3.2 Prescribed burning activities are recorded in accordance with organisational procedures</p> <p>3.3 <i>Incidents</i> are reported and investigated in accordance with organisational procedures</p>

ELEMENT

PERFORMANCE CRITERIA

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

community consultation and liaison
recommending actions to be taken, communicating with others
preparation of plans
map reading
measuring quantities, calculating areas

Required Knowledge

wildfire hazards
prescribed burning strategies
wildfire behaviour
organisational procedures and programs
legislation relevant to wildfire hazard reduction
effects of fire on vegetation, fauna and fuel accumulation
effects of fire on areas and places of cultural significance

Evidence Guide

EVIDENCE GUIDE

**Critical aspects for
assessment and evidence
required to demonstrate**

It is essential for this unit that competence be demonstrated by:

EVIDENCE GUIDE

competency in this unit

identifying wildfire hazards
 developing objectives
 meeting objectives for burn strategies and tactics
 minimising environmental impact
 recognising and consulting interested parties

Consistency in performance

competency demonstrated over a period of time within the range of variables

Context of and specific resources for assessment

Context of assessment

on the job and/or
 indirect evidence in the form of documentation, and/or
 discussion with the applicant and nominated referees
 simulated situations

Specific resources for assessment

travel to remote locations may be necessary

Guidance information for assessment

Information that will assist or guide assessment will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

Range Statement

RANGE STATEMENT

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

Hazards may include

flammable vegetation
 flammable hazardous materials
 adjoining land use, proximity to urban areas

Actions may include

assist in community protection
 hazard reduction
 vegetation management

RANGE STATEMENT

	<ul style="list-style-type: none"> habitat management management of cultural sites
Interested parties may include	<ul style="list-style-type: none"> government organisations including local, state and federal adjacent land owners and/or managers community groups with specific interests
Safety of people may include	<ul style="list-style-type: none"> people on areas adjacent to the target area people permanently or temporarily in the target area smoke management
Protection of property and assets may include	<ul style="list-style-type: none"> property and assets adjacent to the target area commercial crops or other assets on the target area cultural sites, historical buildings, etc.
Protection of the environment may include	<ul style="list-style-type: none"> native flora and fauna rare and endangered species water quality soil conservation safe use of chemical sprays smoke management
Incidents may include	<ul style="list-style-type: none"> fire escapes over control lines accidental chemical spillage damage to equipment and property damage to environment injury to persons complaints from persons or organisations

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil

PUAFIR407B Conduct prescribed burning

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor This unit covers the competency for conducting a prescribed burn.

Application of the Unit

Application of the Unit The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s PUAFIR303B Suppress wildfire

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Prepare to burn

- 1.1 Burn plan is identified in accordance with the organisational procedures and legislative requirements
- 1.2 A *contingency plan* is developed based on *local conditions at the time of burn* and communicated to all personnel
- 1.3 Permits are obtained in accordance with organisational procedures
- 1.4 Burn *notifications* are issued in accordance with organisational procedures
- 1.5 Resource requirements are identified
- 1.6 Control lines are specified and prepared in accordance with organisational procedures
- 1.7 *Assets* are *protected* in accordance with organisational procedures
- 1.8 *Weather conditions* are *monitored*

2. Conduct burn

- 2.1 *Resources* are gathered and deployed
- 2.2 Day of burn notifications are issued
- 2.3 Pre burn checks are conducted
- 2.4 *Lighting* is conducted in accordance with plan or organisational procedures
- 2.5 *Burning* is monitored and operational changes are made as required

ELEMENT	PERFORMANCE CRITERIA
3. Conduct post burn activities	2.6 Records are kept in accordance with organisational procedures 2.7 Burn operations are concluded 3.1 Outcomes of the burn are assessed and reported 3.2 Variations from the burn plan are reported in accordance with organisational procedures 3.3 Restoration and rehabilitation is carried out in accordance with organisational requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

developing a prescribed burn
 conducting high and low intensity prescribed burns
 establishing control lines for prescribed burns
 developing a contingency plan
 monitoring the burn
 undertaking patrol activities

Required Knowledge

legislative, organisational policy and procedures for conducting a prescribed burn
 types of prescribed burns
 seasonal restrictions on prescribed burns
 authorisations required for conducting a burn
 high and low intensity prescribed burns
 ignition patterns and techniques
 developing a prescription
 resource requirements
 procedures for monitoring prescribed burns and securing burn area

REQUIRED SKILLS AND KNOWLEDGE

Evidence Guide

EVIDENCE GUIDE

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential for this unit that competence is demonstrated in:

- the preparation of burn plans for a designated area
- the effective conduct of a burn, utilising the appropriate resources and record action taken
- follow up activities once the burn is completed

Consistency in performance

Evidence should be gathered over a period of time in a range of actual or simulated workplace environments

Context of and specific resources for assessment

Context of assessment

Evidence of competence may be demonstrated on the job and/or in a simulated environment

Specific resources for assessment

Access to a range of controlled or simulated fires
lighting equipment

Guidance information for assessment

Information that will assist or guide assessment will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

Range Statement

RANGE STATEMENT

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised***

RANGE STATEMENT

wording in the Performance Criteria is detailed below.

Assets to be protected	<ul style="list-style-type: none"> buildings historic relics camp or recreational areas utilities (power and telephone lines, water supply structures, communications towers) research plots, reference areas area of rare or sensitive flora and fauna crops plantations other property
Notifications may be given to persons or organisations who	<ul style="list-style-type: none"> have an interest in the area to be burned have an interest in adjacent land to which a burn could spread have an interest in managing the consequences of a burn have an interest in specific assets may be concerned by evidence of a burn
Notification plans are required for	<ul style="list-style-type: none"> private land public land
Weather conditions to be monitored	<ul style="list-style-type: none"> temperature, relative humidity, wind, atmospheric stability
Resources may include	<ul style="list-style-type: none"> experienced crew for ground ignition, trained navigators, bombardiers for aerial ignition, equipment and supplies, tankers, other vehicles, equipment, back-up, logistical support
Lighting techniques and patterns may include	<ul style="list-style-type: none"> ignition method lighting pattern ignition spacing
Burn operations may include	<ul style="list-style-type: none"> low intensity burns high intensity burns
Monitoring of burning may include	<ul style="list-style-type: none"> observations predictions

RANGE STATEMENT

	<ul style="list-style-type: none"> recording fuel moisture content wind speed and direction flame height rate of spread smoke development
Conclusion of burning operations	<ul style="list-style-type: none"> patrol or burn area mop up black out
Contingency plans for escapes include	<ul style="list-style-type: none"> reasons for escape special resources/secondary control lines command structure
Local conditions at time of burn may include	<ul style="list-style-type: none"> wind strength and direction temperature changes in conditions anticipated changes
Restoration and rehabilitation may be required for	<ul style="list-style-type: none"> control lines vehicle tracks areas disturbed by tracked machinery revegetating damaged areas repairing fences

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil

PUAFIR601B Develop and administer agency policy, procedures and practices

Modification History

Release	TP Version	Comments
2	PUA12 V2	Content reviewed Application of the Unit added Performance Criteria revised to ensure consistent use of the passive tense Method of assessment added
1	PUA00 V8.1	Primary release on TGA

Unit Descriptor

This unit covers the competency required to administer agency policy, procedures and practices to support the achievement of organisational and operational objectives.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

This unit applies to personnel required to lead a team to develop policy and supporting procedures to meet an identified organisational need. Policy developed requires integration into the organisation's strategic and business planning.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

PUAFIR504B Assist with the formulation and implementation of plans and policies

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

- | | |
|--|--|
| <p>1. Identify and develop policies, procedures and practices</p> | <p>1.1 Need for new policies, procedures and practices are identified in consultation with <i>stakeholders</i>.</p> <p>1.2 Consultative processes are used to exchange information to assist in problem solving and decision-making in line with organisational requirements.</p> <p>1.3 Cooperation and input to the decision-making process is obtained from all appropriate stakeholders.</p> |
| <p>2. Manage the implementation of policy, procedures and practices</p> | <p>2.1 <i>Organisational policies, practices and procedures</i> are efficiently and effectively implemented and adhered to.</p> <p>2.2 General administration procedures are maintained to ensure organisational objectives are met.</p> <p>2.3 Effective and efficient <i>flow of information</i> within the organisation is facilitated.</p> <p>2.4 <i>Information systems</i> are developed to meet the information needs of the organisation.</p> <p>2.5 Information is gathered, stored, secured and confidentiality is maintained in meeting the operational and strategic needs of the organisation.</p> <p>2.6 Copyright provisions are observed for all information.</p> |
| <p>3. Review policy, procedures and practices</p> | <p>3.1 Policy, procedures and practices are continually reviewed to ensure that information is current, accurate and clear, and meets the requirements of the</p> |

organisation.

3.2 Decisions and actions taken are accurately recorded in accordance with organisational policy, procedures and practices.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- demonstrated skills in verbal and written communications, presentations and submissions
- liaison/interpersonal skills
- review methods
- negotiation and analytical skills

Required Knowledge

- administrative procedures
- agency policies, procedures and practices
- communication methodologies

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to:

- develop, implement and review a range of policies and procedures

Consistency in performance

Competency should be demonstrated over time in a range of actual or simulated workplace environments.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed on-the-job and by exercises/case studies in a simulated workplace environment.

Specific resources for assessment

There are no specific resource requirements for this unit.

Method of assessment

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an agency-approved simulated work environment.

Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors
- written or oral questions

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

<i>Stakeholders</i> may include:	<ul style="list-style-type: none"> • community groups • consultants • customers • executive management • industry, national and international associations • local, state and federal governments • other emergency management and non-government organisations • technical advisers • work groups and individuals internal to the agency
<i>Organisational policies, practices and procedures</i> may include:	<ul style="list-style-type: none"> • agency agreements • agency performance standards • agency practices and guidelines • corporate, strategic and operational plans • industrial agreements • ministerial/government directives • new reforms

	<ul style="list-style-type: none"> • orders and directives • procedures or guidelines • quality standards • relevant legislation
<i>Flow of information</i> may include:	<ul style="list-style-type: none"> • annual reports • business plans • chief executive officer reports • financial reports • notes and memos • personal letters or memos • personnel instructions/directives • publications • service standards • standing orders • technical journals • video, television, electronic information transfer
<i>Information systems</i> may include	<ul style="list-style-type: none"> • assets and stock registers • computer databases • files • notes and memos • personnel files • technical data banks • training and assessment records

Unit Sector(s)

Not applicable.

PUALAW001B Protect and preserve incident scene

Modification History

Release	TP version	Comments
2	PUA12 V1	Layout adjusted. Application reviewed.
1	PUA00 V8.1	Primary release on TGA.

Unit Descriptor

This unit covers the competency required, on arrival at the scene of an accident or incident, to conduct initial assessment, take action to maintain public safety and preserve the scene, and note and record details and information.

The unit is particularly applicable in cases where organisation personnel are the first to arrive at the scene of an accident or incident.

Application of the Unit

This unit applies to all public safety workers at an incident who need to understand the importance of maintaining the legal integrity of the scene. It is not a specialist Crime Scene Investigation unit.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Secure and preserve scene	<p>1.1 Initial <i>assessment</i> is participated in to identify <i>factors which will impact</i> on public safety and scene preservation.</p> <p>1.2 <i>Incident/accident scene</i> is effectively secured to <i>preserve the scene</i> and maintain public safety in line with legislative requirements.</p>
2. Record and report details of incident scene	<p>2.1 <i>Details of the scene</i> are noted, <i>recorded and reported</i> according to organisation's policies and procedures.</p> <p>2.2 <i>Witness details</i> and information volunteered are recorded in accordance with <i>organisational and legislative requirements</i>.</p> <p>2.3 Information is communicated to <i>relevant personnel</i> in line with organisation's procedures.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- listening
- note taking
- observation
- questioning
- reporting

Required Knowledge

- legislative and organisation requirements relating to scene preservation

- methods of securing scene
- organisation requirements for taking witness details and information
- regulatory requirements for taking witness details and information
- techniques for estimating distance
- techniques for removing public from scene
- types of information which may assist in investigations

Evidence Guide

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Demonstrated ability to effectively secure scene and record and report details in accordance with the organisation's policies and procedures.

Consistency in performance

Evidence should be gathered over a period of time in a range of actual or simulated workplace environments.

Context of and specific resources for assessment

Context of assessment

Performance at an incident, exercise or simulation is required to demonstrate competence in this unit. Written or verbal questions may be used as supporting evidence.

Specific resources for assessment

No special requirements.

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

Incident scene may include:

- urban fire
- wild fire
- vehicle fire
- crime scene
- search for missing persons or evidence
- vehicle accident
- natural disaster
- industrial/mining accident
- incident involving death or injury to person or

- damage to property
 - urban scene
 - rural scene
 - indoor scene
 - outdoor scene
 - animal incident
 - marine
 - aircraft
 - train
 - explosions
 - hazardous materials
 - at scene
 - en route to and from scene
- Assessment of scene* may be conducted:
- Factors impacting* may include:
- public safety risk factors including factors that could impact on the safety of investigators
 - response team
 - the security/preservation of the actual site
 - the security and preservation of situational evidence
 - traffic
 - tactical factors affecting the quality of the investigation including environmental circumstances
 - chronology of events
 - access to scene
 - number of persons at scene
 - availability of support services
 - boundaries
 - incident scene specialists
 - forensic experts
 - potential witnesses
 - victims
 - other bystanders
 - personnel from other organisations
 - media
 - coroners
 - pathologists
 - medical practitioners
 - undertakers
 - forensic accountants
 - information technology consultants
 - legal officers
 - owners and/or occupiers
- Persons at scene* may include:

Security of scene may be affected by:

- topography
- climatic conditions
- human interference
- animal interference
- preservation of life/property
- structural integrity
- availability of personnel

Securing scene may include:

- removing non-emergency personnel from scene
- isolating scene
- erecting barriers

Details of scene may include:

- date
- time
- location
- damage
- persons present
- property involved
- possible causes
- items of evidence
- injuries
- status of utilities services such as broken water pipes
- animal species present
- flora
- fauna
- size and construction of building
- occupancy
- insurance details

Witness details may include:

- name
- contact details
- other details in accordance with organisation's policies and procedures

Relevant personnel may include:

- supervisor
- team leader
- police
- investigating officer
- other organisation's personnel

Communication may include:

- verbal
- completing standard forms
- written

Recording and reporting may include:

- taking notes
- completing standard forms
- making sketches

Preserving scene may include:

- taking photographs
- taping
- electronic videoing
- preserving evidence and the area of origin

Organisational and legislative requirements may vary between sectors and organisations and may include:

- legislation relevant to the operation/incident/response
- legislation relevant to the organisation
- operational
- corporate and strategic plans
- operational procedures
- operational performance standards
- organisation's personnel practices and guidelines
- organisation's quality standards

Unit Sector(s)

Not applicable.

PUAOPE004B Conduct briefings/debriefings

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor This unit covers the competency to lead and manage a briefing or debriefing.

Application of the Unit

Application of the Unit The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s PUACOM001C Communicate in the workplace

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Prepare for the brief/debrief

- 1.1 A ***briefing***/debriefing is planned and prepared in accordance with organisation's policy and procedures
- 1.2 ***Relevant personnel*** involved in the activity are identified and informed of debriefing requirements
- 1.3 Briefing/***debriefing*** meeting is scheduled as soon as possible following the incident
- 1.4 An appropriate location for the brief/debrief is selected
- 1.5 Appropriate incident information is collected

2. Conduct the brief/debrief

- 2.1 Purpose and structure of the brief/debrief is outlined to incident personnel
- 2.2 Discussion, analyses and evaluation by personnel of their anticipated or actual roles in the activity are encouraged
- 2.3 Contributions from personnel during the brief/debrief are continually sought, encouraged and valued
- 2.4 Review of the activity against the policies, practices and training of the organisation is undertaken to identify any discrepancies
- 2.5 Brief/debrief is conducted in accordance with the organisation's policies and procedures

3. Conclude the brief/debrief

- 3.1 Contributions of personnel are acknowledged in a positive way
- 3.2 ***Brief/debrief follow-up actions*** are identified

ELEMENT**PERFORMANCE CRITERIA**

- and acted upon in a timely manner
- 3.3 Brief/debrief findings are summarised and recorded if appropriate in a format suitable for **subsequent action** by the appropriate personnel
- 3.4 **Reports** are prepared for presentation to appropriate personnel as required

Required Skills and Knowledge**REQUIRED SKILLS AND KNOWLEDGE**

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- communicate clearly in a group setting
- manage group processes
- prepare a briefing/debriefing plan
- provide feedback and encourage contributions from group members

Required Knowledge

- organisation's policies
- organisation's procedures for activity debriefing
- practices and training processes in relation to activity

Evidence Guide**EVIDENCE GUIDE**

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential for this unit that competence be demonstrated in ability to communicate effectively with personnel and elicit and encourage contributions to the briefing/debriefing in a constructive and positive way

EVIDENCE GUIDE

	<p>Consistency in performance</p> <p>Evidence should be gathered over a period of time in a range of actual or simulated workplace environments</p>
<p>Context of and specific resources for assessment</p>	<p>Context of assessment</p> <p>Evidence of competent performance by observing an individual conduct post activity briefings in a variety of actual and/or simulated operational contexts</p>
	<p>Specific resources for assessment</p> <p>No special requirements</p>
<p>Guidance information for assessment</p>	<p>Information that will assist or guide assessment will be written during Phase II of the Review of the PUA00 Public Safety Training Package.</p>

Range Statement

RANGE STATEMENT

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

<p>Activities may include</p>	<p>Incidents meetings public safety campaigns</p>
<p>Briefing may take place</p>	<p>prior to undertaking operational activities when significant changes are anticipated at an incident prior to undertaking training prior to undertaking workplace projects and other work related activities at regular intervals</p>
<p>Debriefing may take place</p>	<p>when incident personnel have been relieved immediately after the incident when personnel return to their home base a convenient time after the incident after a</p>

RANGE STATEMENT

	meeting/event at shift change overs
Brief/debrief plan will include	purpose subject matter timing location participants methodology
Brief/debrief checklist may include	incident background fatalities injuries loss damage incident response control and command communications supporting organisations welfare equipment and plant first aid and medical stress resources committed to the incident assessment of response strategies strategies to improve response adequacy of initial briefing analysis of planning analysis of performance against aims and objectives
Brief/debrief follow-up action may include	personnel informed of the outcomes of the debrief action taken to address issues identified
Subsequent action may include	reporting to other organisations review of procedures

RANGE STATEMENT**Briefing/debriefing content and format may include**

facilitator led
 collaborative
 problem based
 descriptive illustrative
 level of language used

Organisational policy, procedures, requirements and guidelines may vary between sectors and organisations and may include

legislation relevant to the operation/incident/response
 legislation relevant to the organisation
 operational
 corporate and strategic plans
 operational policy and procedures
 operational performance standards
 organisational personnel practices and guidelines
 organisational quality standards

Relevant personnel

human-operations personnel
 volunteers
 support personnel
 local
 state/territory and federal governments

Reports may be submitted to

organisation's management
 steering committees
 training division personnel
 government agencies

Locations

will vary according to the timing of the brief/debrief which may be before, during or following an activity under non-operational or operational conditions

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil

PUAOPE005B Manage a multi team response

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competency to manage a multi team response to incidents which may be time critical and/or potentially threatening to life, property or the environment.

Application of the Unit

Application of the Unit

The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s

PUAOPE001B Supervise response (Fire specific)

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Conduct an assessment of incident	1.1 A risk assessment of all factors impacting upon the response is conducted 1.2 An initial assessment of <i>resources</i> required is conducted 1.3 Resources required to deal with the incident are identified 1.4 <i>Constraints</i> which may impede the response are identified 1.5 <i>Initial response options</i> are identified and assessed
2. Establish control and command	2.1 Control is assumed in accordance with the organisation's policies and procedures 2.2 <i>Communication systems</i> are activated in accordance with organisation's policies and procedures 2.3 Reporting processes are activated in accordance with organisational policies and procedures to provide continuous monitoring and evaluation of incident 2.4 <i>Command and control facilities</i> are established
3. Develop operational plan	3.1 <i>Operational plan</i> is developed and adjusted if required in accordance with response requirements and operational guidelines

ELEMENT	PERFORMANCE CRITERIA
4. Implement operational plan	<p>3.2 Response strategies are identified</p> <p>3.3 Tactics to effectively manage the incident are identified in accordance with the operational plan</p> <p>3.4 Tasks are determined and prioritised</p> <p>4.1 Operational plan is communicated to teams in accordance with the organisation's guidelines</p> <p>4.2 Resources are deployed to ensure that the operational plan is implemented in accordance with organisation guidelines</p> <p>4.3 Operations are conducted and monitored in accordance with the operational plan</p> <p>4.4 Operational reports are issued in accordance with <i>policy and procedures</i></p> <p>4.5 Operations are modified as required by the situation</p> <p>4.6 Resources are requested, acquired and deployed</p>
5. Manage post incident operations	<p>5.1 Resources are accounted for and demobilised in accordance with organisational policies and procedures</p> <p>5.2 Post operational <i>documentation</i> is completed to organisational requirements</p> <p>5.3 Post incident recovery is initiated in accordance with the organisation's policies and procedures</p> <p>5.4 Effectiveness of operations is evaluated and documented</p> <p>5.5 Debriefing conducted in accordance with organisational guidelines</p> <p>5.6 Recommendations are made for changes in policies and procedures</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- accessing information and support from the control facility

REQUIRED SKILLS AND KNOWLEDGE

- development of response plans including predicting consequences and identifying improvements
- effective and efficient deployment of human and physical resources including:
 - electronic data exchange systems etc.
 - equipment and consumables
 - identification and correct use of equipment
 - materials
 - other organisations
 - personnel
 - personnel and external authorities
 - processes and procedures
 - radio frequency devices
 - team and personnel management
 - team dynamics
- use of a range of information technology devices including computers
- using tools and techniques to solve problems

Required Knowledge

- codes of practice or other legislative requirements
- current principles and practices in response activities
- display of the following knowledge and skills in terms of job role or function:
 - emergency management plans
 - emergency site layout
 - focus of operation of work systems and equipment
 - legislation
 - organisational command structure
 - relevant agreements
 - roles and responsibilities of all organisations
 - security and confidentiality of material

Evidence Guide

EVIDENCE GUIDE

Critical aspects for assessment and evidence required to demonstrate

It is essential for this unit that competence be demonstrated in assessment of incident both functionally and strategically; development of a plan

EVIDENCE GUIDE

competency in this unit

and implementation of response in accordance with the organisation's policies and procedures.

Strategic reaction to changes within the emergency environment

Consistency in performance

Evidence should be gathered over a period of time in a range of actual or simulated workplace environments

Context of and specific resources for assessment

Context of assessment

Assessment may occur in an operational environment or in an industry-approved simulated work environment

Specific resources for assessment

Resources should involve access to, or simulation of, emergency situations in a multi-team response environment.

This includes resources relating to: equipment, personnel, facilities etc appropriate to the emergency situation and within the bounds of responsibility as designated within the requirements of control

Guidance information for assessment

Information that will assist or guide assessment will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

Range Statement

RANGE STATEMENT

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

Initial response options will be determined by

the availability of resources and estimated outcome
organisational guidelines
regulatory authorities
legislative requirements

Risks to life and property

fire

RANGE STATEMENT**may include**

flood
 hazardous materials
 landslip
 severe storm
 biological agents
 fauna rescue

Transport may include

on road
 off road
 aviation
 maritime
 rail

Command facility may include

field facility such as an existing airfield helipads or established operations centre

En route hazards may include

traffic
 prevailing weather
 road conditions
 terrain
 debris
 plumes
 animals
 atmospheric hazards
 tidal conditions
 restricted areas
 wires/masts/aerials
 other aircraft
 interference communications

Hazardous conditions may include

adverse weather
 after dark operations
 difficult terrain
 dangerous goods and substances
 time pressure

RANGE STATEMENT

Incident assessment may include	<ul style="list-style-type: none"> visibility type of incident risk to life property and environment hazards capability of assigned personnel adequacy of allocated equipment information gathered from existing plans/databases forecasts meteorological profiles
Communications systems may include	<ul style="list-style-type: none"> radio telephone computer facsimile pager mobile data terminal satellite signalling signage warnings
Incidents may include	<ul style="list-style-type: none"> life threatening situations protection of property and the environment
Constraints may include	<ul style="list-style-type: none"> legislative resources time prevailing weather restrictions on duration of work or the conditions under which personnel may be employed constraints on road closure redirection of water course military areas

RANGE STATEMENT

	Aboriginal and Torres Strait Islander sacred sites
	other areas of environmental and cultural significance
	seasonal factors
	wilderness areas
	hazardous areas
	other areas requiring permission and/or authorisation to enter
	existing emergency management plans
	financial
Documentation and reporting requirements may include	input to debriefs
	completion of logs
	sitreps
	journal records
	assessment of safety procedures utilised
	financial statements
	post-operational report
Resources may include	human -
	<ul style="list-style-type: none">• operations personnel• volunteers• support personnel
	local, federal and state/territory governments
	physical - equipment
	machinery
	vehicles
	technology devices
	communication devices
	equipment characteristics
	support services
	amenities
	parking
	safety equipment
	aircraft

RANGE STATEMENT

	<p>personnel</p> <p>specialised personnel such as aviation authorities</p> <p>equipment</p> <p>material</p>
<p>Command facility establishment procedures and principles may include</p>	<p>proximity to incident</p> <p>size and type of structure</p> <p>special incident requirements</p> <p>communication modes</p> <p>topography</p> <p>environment</p> <p>climatic conditions</p> <p>logistical operations</p> <p>site access and exit requirements</p> <p>security arrangements</p>
<p>Monitoring of operations may include</p>	<p>progress against plan</p> <p>welfare of personnel</p> <p>utilisation of resources and potential of incident</p>
<p>Organisational policy, procedures, requirements and guidelines may vary between sectors and organisations and may include</p>	<p>legislation relevant to the operation/incident/response</p> <p>legislation relevant to the organisation</p> <p>operational</p> <p>corporate and strategic plans</p> <p>operational procedures</p> <p>operational performance standards</p> <p>organisational personnel practices and guidelines</p> <p>organisational quality standards</p> <p>Civil Aviation Orders</p> <p>search and rescue time</p> <p>procedures/action</p>
<p>Operational plan may include</p>	<p>aims and objectives of the response/incident/operation</p> <p>possible strategies to achieve objectives</p> <p>possible tactics to implement strategies</p>

RANGE STATEMENT

Operational plan may include	resources required including their availability limitations contingencies and alternatives monitoring and evaluative procedures reporting requirements pre-plans flight plans consideration or aircraft type performance and suitability document (formal or informal) part of an overall plan cover one or more place area or region
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Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil

PUATEA001B Work in a team

Modification History

Release	TP version	Comments
2	PUA12 V1	Layout adjusted. Application revised.
1	PUA00 V8.1	First release in TGA.

Unit Descriptor

This unit covers competency in working with others and making a positive contribution to the effectiveness and efficiency of a team in a work environment when predominantly under direct supervision. Limited responsibility towards others is required.

Application of the Unit

This unit applies to all workers working in the Public Safety industry, but is particularly relevant to new workers in assisting integration with the organisational team culture of the agency.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit

Performance Criteria describe the required performance needed to demonstrate achievement of the element.

of Competency.

Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to team activities	<p>1.1 Roles and responsibilities of team members are recognised.</p> <p>1.2 Contribution is made to identifying team goals and objectives.</p> <p>1.3 <i>Activities</i> are completed to required standard within timeframe and in accordance with <i>organisation's policies and procedures</i>.</p> <p>1.4 <i>Assistance</i> in the completion of tasks is requested from other team members where appropriate.</p> <p>1.5 Team members are assisted to ensure efficient and safe completion of tasks in accordance with organisation's policies and procedures.</p> <p>1.6 Participation by team members is encouraged and acknowledged.</p> <p>1.7 Changes in allocated role and responsibilities are implemented.</p> <p>1.8 Team meetings are attended regularly and punctually.</p>
2. Share knowledge and information	<p>2.1 Information relevant to work is communicated effectively with team members to enable efficient completion of tasks in accordance with the organisation's policies and procedures.</p> <p>2.2 Knowledge and skills are shared between team members.</p>
3. Give and receive support to/from team members	<p>3.1 <i>Feedback</i>/assistance is given to other team members in an appropriate manner.</p> <p>3.2 Team members are supported in achieving workplace goals.</p> <p>3.3 Feedback from other team members is acted upon appropriately.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- encouraging others/team members
- following instructions
- interpersonal skills
- listening and using a variety of communication skills
- providing suggestions and information
- reporting information

Required Knowledge

- composition of workplace teams and roles and responsibilities of team members
- non operational and operational communication processes
- techniques for giving and receiving feedback in a constructive manner
- techniques for supporting others

Evidence Guide

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential for this unit that competence be demonstrated in the effective communication and contribution to the achievement of tasks consistent with agreed goals.

Consistency in performance

Evidence will need to be gathered over time in a variety of team situations including regular work group and occasional or one-off work group.

Context of and specific resources for assessment

Context of assessment

On the job or in a simulated workplace environment.

Specific resources for assessment

No special requirements.

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

- Teams*** comprise
- two or more people working towards a shared purpose
- Appropriate situation to request assistance*** may include:
- difficulty meeting timelines
 - to comply with occupational health and safety requirements
 - unsure of best method to complete task
 - to maximise efficiency
- Assisting other team members*** may include:
- own tasks completed
 - to comply with occupational health and safety requirements
 - assistance requested
 - actions of others do not comply with requirements
 - other team member appears to be having difficulty completing task
- Contribute to workplace goals*** may include:
- completion of task
 - achievement of new competencies
 - development of new skills
 - attainment of new knowledge
 - personal development
- Activities*** may include:
- working with other members of a team in a work environment or responding in a combat or support role to natural emergencies technological/industrial emergencies
 - civil/political emergencies and non emergency operations including community events
 - public relations – activities
 - sporting events
 - parades
 - festivals
- Conditions*** under which this competency may be required include
- hazardous conditions eg adverse weather
 - after dark operations
 - difficult terrain
 - time pressure
 - varying time frames from immediate/short term to long term response operations
 - varying access to equipment/resources necessitating the use of improvised techniques
 - single or multi organisation responses
 - dealing with human behaviours that result from emergency situations
 - non-emergency operations and events eg training and community education
- Appropriate feedback on***
- acknowledging initiative

performance may include:

- aptitude
- ideas
- performance and assistance
- providing constructive criticism

Organisation's policy and procedures may vary between sectors and organisations and may include:

- legislation relevant to the operation/incident/response
- legislation relevant to the organisation
- operational
- corporate and strategic plans
- operational procedures
- operational performance standards
- organisation's personnel practices
- policy and procedures
- organisation's quality standards
- organisation's approach to environmental management and sustainability

Communication processes may include:

- established organisation's procedures for recording and reporting
- the use of logs
- notebooks
- pagers
- radios and telephones
- team members may be geographically dispersed and require communication systems and technology to remain in contact

Unit Sector(s)

Not applicable.

RIIMPO304D Conduct wheel loader operations

Modification History

Release	Comment
1	This unit replaces RIIMPO304B Conduct wheel loader operations. Performance Criteria amended to make requirements more explicit; manoeuvring, driving and parking up added; operator maintenance element added.
2	Modification History information inserted.
3	Knowledge Evidence amended; removed repetition in Performance Criteria; amend reference to Licensing requirements in Unit Application.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.
5	Performance Criteria 1.4 and 1.8 were repetitive, removal of 1.8.

Application

This unit describes a participant's skills and knowledge required to conduct wheel loader operations in the Coal and Metalliferous mining and Extractive.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

Coal mining

Extractive

Metalliferous mining

Elements and Performance Criteria

1. Plan and	1.1 Access, interpret and apply wheel loader operations
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prepare for wheel loader operations	<p>documentation and ensure the work activity is compliant</p> <p>1.2 Obtain, read, interpret, clarify and confirm work requirements</p> <p>1.3 Identify and address risks, hazards and environmental issues and implement control measures</p> <p>1.4 Select and wear personal protective equipment appropriate for work activities and interpret emergency procedures, and be prepared for fire/accident/emergency</p> <p>1.5 Access, interpret and apply geological and survey data required to complete the allocated job</p> <p>1.6 Inspect and prepare work area in coordination with others</p> <p>1.7 Select, and check for faults, equipment and/or attachments for work activities</p>
2. Operate the wheel loader	<p>2.1 Carry out start-up, park, shutdown and secure equipment procedures</p> <p>2.2 Coordinate activities with others at the site prior to commencing, during, and on completions of the work activity</p> <p>2.3 Drive loader, select and modify the operating technique to meet changing work conditions</p> <p>2.4 Monitor and manage equipment performance using indicators and alarms, and ensure efficiency of operation</p> <p>2.5 Continually monitor hazards and risks, and ensure safety of self, other personnel, plant and equipment</p> <p>2.6 Complete the work plan, within the operating capacities of the equipment</p>
3. Carry out operator maintenance	<p>3.1 Prepare machine for maintenance</p> <p>3.2 Conduct inspection and fault finding</p> <p>3.3 Carry out scheduled maintenance tasks</p> <p>3.4 Return machine to service</p> <p>3.5 Process written maintenance records</p>
4. Conduct housekeeping activities	<p>4.1 Clear work area and dispose of or recycle materials</p> <p>4.2 Manage and/or report hazards, and maintain a safe working environment</p> <p>4.3 Process written records</p>

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIMPO304B Conduct wheel loader operations

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIMPO304D Conduct wheel loader operations

Modification History

Release	Comment
1	This unit replaces RIIMPO304B Conduct wheel loader operations. Performance Criteria amended to make requirements more explicit; manoeuvring, driving and parking up added; operator maintenance element added.
2	Modification History information inserted.
3	Knowledge Evidence amended; removed repetition in Performance Criteria; amend reference to Licensing requirements in Unit Application.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.
5	Performance Criteria 1.4 and 1.8 were repetitive, removal of 1.8.

Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of wheel loader operations including:
 - conducting prestart checks prior to commencing operations and shutdown procedures on completion of operations
 - carrying out vehicle refuelling requirements and procedures
 - applying safe work practices and identifying and reporting all potential hazards, risks and environmental issues
 - applying problem solving and troubleshooting techniques
 - conducting bucket loading and discharge
 - selecting and using the required tools and equipment
 - inspection and preparation of work area
 - working safely around other machines and personnel

- works effectively with others to undertake and complete wheel loader operations that meet all of the required outcomes including:
 - using a range of communications techniques and equipment to convey information to others
 - maintaining written and verbal reporting requirements and procedures
- demonstrates completion of conducting wheel loader operations that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - driving and operating the wheel loader for operations adjusting equipment operations to suit site conditions
 - shifting loads, carries the load as close to the ground as possible and deposits load to the correct location
 - selecting, removing and fitting attachments
 - following the steps to shut down the wheel loader

Knowledge Evidence

The candidate must demonstrate knowledge of the following when conducting wheel loader operations:

- identifying equipment processes, technical capability and limitations
- identifying, interpreting and using geological and technical data (basic)
- identifying signs of operator fatigue and how it should be managed identifying
- apply loading techniques
- interpreting plans, reports, maps, specifications
- applying operational, maintenance and basic diagnostics
- completing housekeeping activities

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,

- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

RIIMPO318E Conduct civil construction skid steer loader operations

Modification History

Release	Comment
1	This unit replaces RIIMPO318D Conduct civil construction skid steer loader operations. Performance criteria 3.3 and 5.2 amended. Element 5 title amended. Amendments made to performance and knowledge evidence. All changes were minor in relation to lifting, attachments, refuelling and relocating plant.

Application

This unit describes the skills and knowledge required to conduct civil construction skid steer loader operations in civil construction.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

Civil construction

Elements and Performance Criteria

1. Plan and prepare for skid steer loader operations	<p>1.1 Access, interpret and apply skid steer loader operations documentation and ensure the work activity is compliant</p> <p>1.2 Obtain, read, interpret, clarify and confirm work requirements</p> <p>1.3 Identify and address risks, hazards and environmental issues and implement control measures</p> <p>1.4 Select and wear personal protective equipment appropriate for work activities</p> <p>1.5 Obtain, identify and implement traffic signage requirements</p> <p>1.6 Select, and check for faults, equipment and/or attachments for work activities</p> <p>1.7 Obtain and interpret emergency procedures, and be prepared</p>
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	for fire/accident/emergency
2. Operate skid steer loader	<p>2.1 Carry out pre-start, start-up, park, shutdown and secure equipment procedures</p> <p>2.2 Coordinate activities with others at the site prior to commencement of, and during, the work activity</p> <p>2.3 Continually monitor hazards and risks, and ensure safety of self, other personnel, plant and equipment</p> <p>2.4 Drive and operate loader, and modify the operating technique to meet changing work conditions</p> <p>2.5 Complete work plan within the operating capacity of the equipment</p> <p>2.6 Act on or report monitoring systems and alarms</p>
3. Load, carry and place materials	<p>3.1 Conduct communication practices associated with transportation and lifting of materials</p> <p>3.2 Establish weight of load and ensure it is within safe operational limits of the machine</p> <p>3.3 Select, appropriate attachment and/or required equipment in accordance with safe working load requirements</p> <p>3.4 Position machinery to ensure stability and locate to effectively shift materials according to job specifications</p> <p>3.5 Shift load safely and effectively</p> <p>3.6 Move load using hand/audible/communication signals</p>
4. Select, remove and fit attachments	<p>4.1 Select attachment for the task</p> <p>4.2 Remove and fit attachment</p> <p>4.3 Test attachment and ensure correct fitting and operation</p> <p>4.4 Use attachment in accordance with recommendations and design limits</p> <p>4.5 Clean and store removed attachments in designated location</p>
5. Prepare to relocate the skid steer loader	<p>5.1 Prepare for relocation of skid steer loader</p> <p>5.2 Move skid steer loader safely within and/or between work areas, observing relevant codes and traffic management requirements</p> <p>5.3 Load and unload machine from float/trailer</p>
6. Carry out machine operator maintenance	<p>6.1 Prepare machine for maintenance</p> <p>6.2 Conduct inspection and fault finding</p> <p>6.3 Carry out scheduled maintenance tasks</p>

	6.4	Process written maintenance records
7. Conduct housekeeping activities	7.1	Clear work area and dispose of or recycle materials
	7.2	Process records

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
RIIMPO318E Conduct civil construction skid steer loader operations	RIIMPO318D Conduct civil construction skid steer loader operations	Minor amendments made to element title, two performance criteria, performance and knowledge evidence.	Equivalent

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIMPO318E Conduct civil construction skid steer loader operations

Modification History

Release	Comment
1	This unit replaces RIIMPO318D Conduct civil construction skid steer loader operations. Performance criteria 3.3 and 5.2 amended. Element 5 title amended. Amendments made to performance and knowledge evidence. All changes were minor in relation to lifting, attachments, refuelling and relocating plant.

Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of civil construction skid steer loader operations including:
 - conducting prestart checks prior to commencing operations and shutdown procedures on completion of operations
 - driving and operating the equipment to site conditions
 - applying safe work practices and identifying and reporting all potential hazards, risks and environmental issues
 - applying problem solving and troubleshooting techniques
 - applying levelling techniques
 - selecting and using the required tools and equipment
 - working safely around other machines and personnel
 - safely parking and securing equipment
 - applying methods of changing machine attachments
- works effectively with others to undertake and complete civil construction skid steer loader operations that meet all of the required outcomes including:
 - using a range of communications techniques and equipment to convey information to others
 - maintaining written and verbal reporting requirements and procedures
 - organising work activities to meet all task requirements
 - communicating clearly and concisely with others to receive and clarify work instructions

- demonstrates completion of conducting civil construction skid steer loader operations that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - completion of operations to specification using a variety of material types including:
 - stripping/spreading topsoil and materials
 - backfilling
 - lifting, loading vehicles
 - excavations
 - mixing materials
 - site clean-up
 - selecting, fitting, testing, using and removing a minimum of one (1) of the following attachments:
 - multipurpose bucket
 - forks
 - dozer blade
 - backhoe
 - auger
 - chain digger
 - power broom
 - profiler
 - tiller/mixer
 - rotary hoe
 - hammer
 - asphalt cutter/saw
 - concrete cutter/saw
 - rake

Knowledge Evidence

The candidate must demonstrate knowledge of the following when conducting civil construction skid steer loader operations:

- ground conditions
- isolation procedures
- equipment processes, technical capability and limitations
- preparation for fire/accident/emergency
- signs of operator fatigue and how it should be managed
- interpretation of drawings and sketches
- site isolation and traffic control responsibilities and authorities
- Civil construction terminology
- project quality requirements
- basic principles of soil technology and soil compaction for civil works

- basic earthworks calculations
- Civil construction activity sequences of road construction, earthworks and drainage
- methods for calculating safe working loads
- operational, maintenance and basic diagnostics
- housekeeping activities
- vehicle refuelling requirements and procedures

Assessment Conditions

- Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors; and industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector’s work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other units of competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this unit of competency, and through the minimum years of current* work experience specified below in an industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an industry subject matter expert. The industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or industry sector as follows:

Industry sector	AQF** Level	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years

Other sectors	Where this unit is being assessed outside of the Resources and Infrastructure Sectors, assessor and/or industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and, where no industry standard is specified, should comply with any relevant regulation.
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*Assessors can demonstrate current work experience through employment within industry in a role relevant to the outcomes of the unit; or, for external assessors this can be demonstrated through exposure to industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered to indicate the AQF level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

RIIMPO319D Conduct backhoe/loader operations

Modification History

Release	Comment
1	This unit replaces RIIMPO319A Conduct backhoe loader operations.
2	Amended Performance Evidence and Performance Criteria; amend reference to Licensing requirements in Unit Application.
3	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to conduct backhoe/loader operations in Civil construction.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

Civil construction

Elements and Performance Criteria

1. Plan and prepare for backhoe/loader operations	<p>1.1 Access, interpret and apply backhoe/loader operations documentation and ensure the work activity is compliant</p> <p>1.2 Obtain, read, interpret, clarify and confirm work instructions</p> <p>1.3 Identify and address risks, hazards and environmental issues and implement control measures</p> <p>1.4 Select and wear personal protective equipment appropriate for work activities</p> <p>1.5 Identify, obtain and implement signage traffic management</p>
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	<p>requirements</p> <p>1.6 Select, and check for faults, equipment and/or attachments for work activities</p> <p>1.7 Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency</p>
2. Operate backhoe/loader	<p>2.1 Carry out pre-start, start-up, park, shutdown and secure equipment procedures</p> <p>2.2 Coordinate activities with others at the site prior to commencement of, and during, the work activity</p> <p>2.3 Continually monitor hazards and risks, and ensure safety of self, other personnel, plant and equipment</p> <p>2.4 Drive and operate machine, and modify the operating technique to meet changing work conditions</p> <p>2.5 Complete work plan within the operating capacity of the equipment</p> <p>2.6 Act on or report monitoring systems and alarms</p>
3. Load, carry and place materials	<p>3.1 Conduct communication practices associated with transportation and lifting of materials</p> <p>3.2 Establish weight of load and ensure it is within safe operational limits of the machine</p> <p>3.3 Select, attach and apply slings and lifting gear in accordance with safe working load requirements</p> <p>3.4 Position and locate machinery to ensure stability to effectively shift materials according to job specifications</p> <p>3.5 Shift load safely and effectively</p> <p>3.6 Move load using hand/audible/communication signals</p>
4. Select, remove and fit attachments	<p>4.1 Select attachment for the task</p> <p>4.2 Remove and fit attachment</p> <p>4.3 Test attachment and ensure correct fitting and operation</p> <p>4.4 Use attachment in accordance with recommendations and design limits</p> <p>4.5 Clean and store removed attachments in designated location</p>
5. Relocate the backhoe/loader	<p>5.1 Prepare backhoe/loader for relocation</p> <p>5.2 Move backhoe/loader safely between worksites, observing relevant codes and traffic management requirements</p>
6. Carry out machine	<p>6.1 Prepare machine for maintenance</p>

operator maintenance	6.2	Conduct inspection and fault finding
	6.3	Carry out scheduled maintenance tasks
	6.4	Process written maintenance records
7. Clean up	7.1	Clear work area and dispose of or recycle materials
	7.2	Process records

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIMPO319A Conduct backhoe loader operations

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIMPO319D Conduct backhoe/loader operations

Modification History

Release	Comment
1	This unit replaces RIIMPO319A Conduct backhoe loader operations.
2	Amended Performance Evidence and Performance Criteria; amend reference to Licensing requirements in Unit Application.
3	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of backhoe/ loader operations including:
 - conducting prestart checks prior to commencing operations and shutdown procedures on completion of operations
 - carrying out vehicle refuelling requirements and procedures
 - driving and operating the equipment to site conditions
 - applying safe work practices and identifying and reporting all potential hazards, risks and environmental issues
 - applying problem solving and troubleshooting techniques
 - applying leveling techniques
 - selecting and using the required tools and equipment
 - working safely around other machines and personnel
 - safely parking and securing of equipment
 - applying methods of changing machine attachments
- works effectively with others to undertake and complete backhoe/ loader operations that meet all of the required outcomes including:

- using a range of communications techniques and equipment to convey information to others
- maintaining written and verbal reporting requirements and procedures
- organising work activities to meet all task requirements
- communicating clearly and concisely with others to receive and clarify work instructions
- demonstrates completion of conducting backhoe/loader operations that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - completion of operations to specification using a variety of material types including:
 - mixing materials
 - stripping/spreading topsoils and materials
 - trench excavation
 - backfilling
 - lifting and carrying materials
 - loading dump trucks, wagons, hoppers, chutes, and cutting/boxing
 - fitting and removal a variety of attachments selected from the following:
 - extending devices
 - tilt bucket
 - buckets
 - compaction wheel
 - ripper
 - plate compactor
 - rock breaker
 - auger
 - broom
 - mower/slasher
 - forklift
 - 4 in 1 bucket and free/rock grab

Knowledge Evidence

The candidate must demonstrate knowledge of the following when conducting backhoe/loader operations:

- identifying, interpreting ground conditions
- communicating and performing isolation procedures
- identifying equipment processes, technical capability and limitations
- being prepared for fire/accident/emergency
- identifying signs of operator fatigue and how it should be managed
- interpreting drawings and sketches
- identifying site isolation and traffic control responsibilities and authorities

- using civil construction terminology
- complying with project quality requirements
- applying basic principles of soil technology and soil compaction for civil works
- using basic earthworks calculations
- using civil construction activity sequences of road construction, earthworks and drainage
- applying leveling techniques
- using methods for calculating safe working loads
- applying operational, maintenance and basic diagnostics
- completing housekeeping activities

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector’s work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years

Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

RIIMPO324E Conduct civil construction grader operations

Modification History

Release	Comment
1	This unit replaces RIIMPO324D Conduct civil construction grader operations. 'Use of machine guidance system and laser levelling equipment' moved from performance evidence to knowledge evidence. Grammatical amendments made to the performance criteria. Added mapping table.

Application

This unit describes a participant's skills and knowledge required to conduct civil construction grader operations in civil construction.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

Civil construction

Elements and Performance Criteria

1. Plan and prepare for grader operations	<p>1.1 Access, interpret and apply grader operations documentation and ensure the work activity is compliant</p> <p>1.2 Obtain, read, interpret, clarify and confirm work instructions</p> <p>1.3 Identify and address risks, hazards and environmental issues and implement control measures</p> <p>1.4 Select and wear personal protective equipment appropriate for work activities</p> <p>1.5 Identify, obtain and implement traffic management signage requirements</p> <p>1.6 Select, and check for faults, equipment and/or attachments for work activities</p> <p>1.7 Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency</p>
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2. Operate grader	<p>2.1 Carry out pre-start, start-up, park, shutdown and secure equipment procedures</p> <p>2.2 Coordinate activities with others at the site prior to commencement of, and during, the work activity</p> <p>2.3 Continually monitor hazards and risks, and ensure safety of self, other personnel, plant and equipment</p> <p>2.4 Identify and apply operating techniques for grader to achieve optimum output within specified tolerances</p> <p>2.5 Drive and operate grader, and modify the operating technique to meet changing work conditions</p> <p>2.6 Complete work plan within the operating capacity of the equipment</p> <p>2.7 Act on or report monitoring systems and alarms</p>
3. Select, remove and fit attachments	<p>3.1 Select attachment for the task</p> <p>3.2 Remove and fit attachment</p> <p>3.3 Test attachment and ensure correct fitting and operation</p> <p>3.4 Use attachment in accordance with recommendations and design limits</p> <p>3.5 Clean and store removed attachments in designated location</p>
4. Relocate Prepare to relocate the grader	<p>4.1 Prepare grader for relocation</p> <p>4.2 Move grader safely within and between worksiteswork areas, observing relevant codes and traffic management requirements</p> <p>4.3 Load and unload machine from float/trailer</p>
5. Carry out machine operator maintenance	<p>5.1 Prepare machine for maintenance</p> <p>5.2 Conduct inspection and fault finding</p> <p>5.3 Carry out scheduled maintenance tasks</p> <p>5.4 Process written maintenance records</p>
6. Conduct housekeeping activities	<p>6.1 Clear work area and dispose of or recycle materials in accordance with project environmental management plan</p> <p>6.2 Process records</p>

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
RIIMPO324E Conduct civil construction grader operations	RIIMPO324D Conduct civil construction grader operations	'Use of machine guidance system and laser levelling equipment' moved from performance evidence to knowledge evidence. Grammatical amendments made to the performance criteria. Add mapping table.	Equivalent

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIMPO324E Conduct civil construction grader operations

Modification History

Release	Comment
1	This unit replaces RIIMPO324D Conduct civil construction grader operations. 'Use of machine guidance system and laser levelling equipment' moved from performance evidence to knowledge evidence. Grammatical amendments made to the performance criteria. Added mapping table.

Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of grader operations including:
 - conducting prestart checks prior to commencing operations and shutdown procedures on completion of operations
 - carrying out vehicle refuelling requirements and procedures
 - driving and operating the equipment to site conditions
 - applying safe work practices and identifying and reporting all potential hazards, risks and environmental issues
 - applying problem solving and troubleshooting techniques
 - applying leveling techniques
 - applying cut and fill techniques
 - conducting towing of equipment/plant
 - selecting and using the required tools and equipment
 - working safely around other machines and personnel
 - safely parking and securing of equipment
 - applying methods of changing machine attachments
- works effectively with others to undertake and complete grader operations that meet all of the required outcomes including:
 - using a range of communications techniques and equipment to convey information to others
 - maintaining written and verbal reporting requirements and procedures

- organising work activities to meet all task requirements
- communicating clearly and concisely with others to receive and clarify work instructions
- demonstrates completion of civil construction grader operations that safely, effectively and efficiently meet all of the required outcomes on more than one (1) occasion including:
 - completion of operations to specification using a variety of material types including:
 - cutting and maintaining drains
 - forming/upgrading/maintaining roads
 - mixing/ spreading materials
 - scarifying and ripping
 - cutting and trimming of batters
 - trimming of road sub-grades and pavements
 - site clean-up
 - form and carry a windrow
 - select, fit and remove at least two (2) attachments

Knowledge Evidence

The candidate must demonstrate knowledge of the following when conducting civil construction grader operations:

- identifying, interpreting ground conditions
- communicating and performing isolation procedures
- identifying equipment processes, technical capability and limitations
- being prepared/preparation for fire/accident/emergency
- identifying signs of operator fatigue and how it should be managed
- interpreting drawings and sketches
- identifying site isolation and traffic control responsibilities and authorities
- using civil Civil construction terminology
- complying with project quality requirements
- applying basic principles of soil technology and soil compaction for civil works
- using basic earthworks calculations
- using civil Civil construction activity sequences of road construction, earthworks and drainage
- using methods for calculating safe working loads
- applying operational, maintenance and basic diagnostics
- completing housekeeping activities
- use machine guidance system and laser levelling equipment

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors; and industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector’s work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units units of Competencycompetency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit unit of Competencycompetency, and through the minimum years of current* work experience specified below in an industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an industry subject matter expert. The industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or industry sector as follows:

Industry sector	AQF** Level	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit unit is being assessed outside of the Resources and Infrastructure Sectors, assessor and/or industry subject matter expert experience should be in-line with industry standards for the sector in which it is being	

	assessed and, where no Industry standard is specified, should comply with any relevant regulation.
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*Assessors can demonstrate current work experience through employment within industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

RIIWH202D Enter and work in confined spaces

Modification History

Release	Comment
1	The unit replaces RIIOHS202A Enter and work in confined spaces.
2	Editorial corrections.
3	Amended Application field.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to enter and work in confined spaces in the Resources and Infrastructure Industries.

This unit is appropriate for those working in operational roles undertaking work in confined spaces.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

Note: The terms Occupational Health and Safety (OHS) and Work Health and Safety (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the National Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.

Elements and Performance Criteria

1 Plan and prepare for working in confined space	<p>1.1 Access, interpret and apply procedures for confined space entry and the environmental management plan and ensure the work activity is compliant</p> <p>1.2 Obtain, confirm, clarify and apply work instructions and agreed procedure</p> <p>1.3 Obtain, confirm, clarify and apply safety requirements</p>
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	<p>1.4 Obtain and confirm authorisation (entry permit) meets regulatory requirements</p> <p>1.5 Confirm the emergency response procedure is with the stand-by person and understood</p> <p>1.6 Identify, obtain and implement signage and barrier requirements</p> <p>1.7 Select tools and equipment for the tasks, check for serviceability and rectify or report any faults</p> <p>1.8 Identify, confirm and apply the environmental protection requirements</p> <p>1.9 Position rescue equipment by the entry permit</p>
2 Work in confined space	<p>2.1 Gain access to confined space</p> <p>2.2 Ensure that the atmosphere is tested and monitored for harmful elements</p> <p>2.3 Correctly apply tagging and lock-out procedures</p> <p>2.4 Enter the confined space correctly</p> <p>2.5 Maintain ongoing communication with the stand-by person</p> <p>2.6 Comply with entry permit requirements</p> <p>2.7 Monitor and adhere to allocated entry time</p>
3 Exit confined space	<p>3.1 Exit confined space correctly</p> <p>3.2 Recover tools, equipment and materials</p> <p>3.3 Conduct inspection of the confined space</p> <p>3.4 Secure access to the confined space</p> <p>3.5 Remove tagging and lock-out</p> <p>3.6 Accurately complete confined space entry permit</p>
4 Clean up	<p>4.1 Clear work area and dispose of or recycle materials</p> <p>4.2 Clean, check, maintain and store tools and equipment</p> <p>4.3 Remove, clean and store barriers and signs</p>

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIOHS202A Entering and working in confined spaces

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIWHS202D Enter and work in confined spaces

Modification History

Release	Comment
1	The unit replaces RIIOHS202A Enter and work in confined spaces.
2	Editorial corrections.
3	Amended Application field.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- demonstrates completion of entering and working in confined spaces that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - obtain appropriate entry permit and instructions for performing work in confined space
 - interpreting and applying safe work method statements
 - apply tagging and lock out
 - selecting, wearing and caring for personal protective equipment applicable to all tasks and environment identified
 - entering the confined space
 - using atmospheric monitoring devices prior to entering the confined space
 - working in the confined space
 - using atmospheric monitoring devices during confined space activity
 - applying safe materials handling methods
 - exiting the confined space
 - remove tagging and lock out

Knowledge Evidence

The candidate must demonstrate knowledge of enter and work in confined spaces through:

- identifying areas that constitute confined spaces
- complying with site and equipment safety requirements
- complying with the entry and exit procedures, risks and regulations
- types of air contaminants and toxic gases
- identifying the limitations of breathing apparatus
- identifying equipment types, characteristics, technical capabilities and limitations
- complying with site isolation and site control responsibilities and authorities
- locations of safety data sheets (SDS) information and application
- using confined space and Industry terminology

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit is best assessed in the context of this sector's work environment;
- where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

RIIWH204D Work safely at heights

Modification History

Release	Comments
1	This unit replaces RIIOHS204A Work safely at heights.
2	Formatting corrections.
3	Inserted Application information.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to work safety at heights in the Resources and Infrastructure Industries.

This unit is appropriate for those working in operational roles where they are required to perform work at heights.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

Note: The terms Occupational Health and Safety (OHS) and Work Health and Safety (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the National Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.

Elements and Performance Criteria

1. Identify work requirements	<p>1.1 Access, interpret and apply height safety procedures and ensure the work activity is compliant</p> <p>1.2 Inspect site to determine layout and physical condition, condition of structures, prevailing weather conditions, equipment requirements and potential hazards</p>
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	<p>1.3 Adhere to WHS requirements</p> <p>1.4 Identify, select and check safety equipment for serviceability</p> <p>1.5 Identify, manage and report potential risks and hazards</p>
2. Identify work procedures and instructions	<p>2.1 Consult with authorised personnel to select materials, tools and equipment and check for serviceability</p> <p>2.2 Select, wear and care for personal protective equipment</p> <p>2.3 Inspect/install fall protection and perimeter protection equipment</p> <p>2.4 Identify approved methods of moving tools and equipment to work area and minimise potential hazards associated with tools at heights</p> <p>2.5 Ensure safety system has been installed correctly</p> <p>2.6 Select and install appropriate signs and barricades</p>
3. Access and install equipment	<p>3.1 Consult with authorised personnel to ensure anchor fall protection and associated equipment is correctly fitted and adjusted</p> <p>3.2 Ensure all required equipment is installed</p> <p>3.3 Use recommended methods to access work area for people, tools and equipment</p> <p>3.4 Locate tools and materials to eliminate or minimise the risk of items being knocked down</p>
4. Perform work at heights	<p>4.1 Check access from ground to work area and ensure it is safe</p> <p>4.2 Keep fall equipment in place and adjusted appropriately for movement during work</p> <p>4.3 Undertake manual handling of materials and equipment</p> <p>4.4 Locate materials and equipment ensuring that they are safely secured and distributed</p> <p>4.5 Check safety system periodically for compliance</p> <p>4.6 Monitor risk control measures to ensure that they are effective and appropriate</p> <p>4.7 Reassess risk control measures, as required, in accordance with changed work practices and/or site conditions and undertake alterations</p>
5. Clean up work area	<p>5.1 Consult with authorised personnel to ensure safety system is dismantled and removed</p> <p>5.2 Clear work area and dispose of or recycle materials</p> <p>5.3 Clean, check, maintain and store tools and equipment</p>

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIOHS204A Working safely at heights

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIWHS204D Work safely at heights

Modification History

Release	Comments
1	This unit replaces RIIOHS204A Work safely at heights.
2	Formatting corrections.
3	Inserted Application information.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- demonstrates completion of working safely at heights that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - accessing, interpreting and applying technical and safety information for working at heights
 - assessing hazards and risk associated with working at heights and implement control methods
 - selecting wearing and caring for personal protective equipment
 - identifying required safety systems including fall protection and associated equipment
 - checking that fitting, adjusting and anchoring of fall protection and associated equipment is correct
 - performing work safely at heights

Knowledge Evidence

The candidate must demonstrate knowledge of the following when working safely at heights:

- names and functions of equipment, components and materials

- complying with equipment manufacturer's instructions and specifications
- safe shifting and handling of tools and materials
- adhering to statutory and regulatory authority requirements
- the nature of work undertaken at heights
- complying with heights safety systems
- the processes of providing for safe working practices
- using safety equipment/systems and considerations to facilitate working safely at heights
- complying with safe work methods

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit is best assessed in the context of this sector's work environment;
- where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years

Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

RIIWH205D Control traffic with stop-slow bat

Modification History

Release	Comment
1	The unit replaces RIIOHS205A Control traffic with stop-slow bat.
2	Editorial corrections; Performance Criteria numbering for element 1 corrected.
3	Amended Application field.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to control traffic with stop-slow bat in the Resources and Infrastructure Industries.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

Note: The terms Occupational Health and Safety (OHS) and Work Health and Safety (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the National Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.

Elements and Performance Criteria

1. Plan and prepare	1.1 Access, interpret and apply site traffic plan procedures and ensure the work activity is compliant 1.2 Obtain, confirm, clarify and apply work instructions 1.3 Obtain, confirm, clarify and apply safety requirements 1.4 Identify, obtain and implement signage and devices 1.5 Select tools and equipment, check for serviceability and rectify or report any faults
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	1.6 Identify, confirm, clarify and apply environmental protection requirements
2. Control traffic	2.1 Position or confirm temporary traffic signs and barriers 2.2 Direct traffic correctly 2.3 Control vehicles and pedestrian traffic and ensure safety 2.4 Monitor traffic, make adjustments for changing conditions and position waiting vehicles for smooth traffic flow 2.5 Use hand held stop/slow bats 2.6 Use visibly clear and unobstructed hand signals 2.7 Report traffic offenders
3. Operate communication devices	3.1 Adjust communication device controls for optimum reception/transmission results 3.2 Transmit messages clearly and concisely 3.3 Maintain communication device power supply 3.4 Check communications contact after nominated period of non-contact
4. Clean up	4.1 Remove or cover signs and devices sequentially to provide warning to motorists during shutdown 4.2 Clean, check, maintain and store tools and equipment

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIOHS205A Control traffic with stop-slow bat

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIWHS205D Control traffic with stop-slow bat

Modification History

Release	Comment
1	The unit replaces RIIOHS205A Control traffic with stop-slow bat.
2	Editorial corrections; Performance Criteria numbering for element 1 corrected.
3	Amended Application field.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- demonstrates completion of controlling traffic with a stop-slow bat that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - reading and interpreting the work instruction and planning work activity accordingly
 - positioning signage and barriers
 - directing and controlling vehicle traffic
 - directing and controlling pedestrian traffic
 - communicating to drivers and pedestrians clearly using hand signals
 - using approved communication devices such as hand held radios or phones to transmit message and report of offenders
 - removing or covering signs after work completion

Knowledge Evidence

The candidate must demonstrate knowledge of controlling traffic with stop-slow bat through:

- site and equipment safety requirements

- traffic controlling requirements and procedures
- complying with traffic management plans
- erecting traffic control signage and barricades
- communication device operations
- determine equipment types, characteristics, technical capabilities and limitations
- operational and maintenance procedures for equipment
- detailing site isolation and traffic control responsibilities and authorities
- describing the effects of travel speed and vehicle mass on stopping distances
- interpreting and implementing safe work method statement

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit is best assessed in the context of this sector’s work environment;
- where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of this sector’s workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal	1	1 Year

Mining, Extractive (Quarrying) and Civil Construction	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

RIIWHS302D Implement traffic management plan

Modification History

Release	Comment
1	The unit replaces RIIOHS302A Implement traffic management plan.
2	Editorial corrections.
3	Amended Application field.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit develops a participant's skills and knowledge required to implement a traffic management plan in Civil construction.

This unit is appropriate for those working in supervisory roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

Note: The terms Occupational Health and Safety (OHS) and Work Health and Safety (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the National Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.

Elements and Performance Criteria

1 Plan and prepare to implement traffic management plan	<p>1.1 Access, interpret and apply traffic management documentation and ensure the work activity is compliant</p> <p>1.2 Obtain, read, interpret, clarify and confirm work requirements</p> <p>1.3 Identify, address and report potential risks, hazards and environmental issues and implement control measures</p> <p>1.4 Select and wear personal protective equipment appropriate for the work activity</p>
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	<p>1.5 Identify, obtain and implement traffic control signage and devices</p> <p>1.6 Select, and check for faults, tools and equipment to carry out tasks</p> <p>1.7 Identify, confirm and apply environmental protection requirements</p> <p>1.8 Check the designated traffic controllers' training and qualifications for currency</p> <p>1.9 Advise traffic controllers of the traffic flow requirements</p>
2 Set out the traffic guidance scheme	<p>2.1 Select traffic guidance scheme to suit site conditions, traffic volumes and work activities</p> <p>2.2 Determine and ensure adherence to work schedule, maximum traffic delays, signals and site communications</p> <p>2.3 Ensure signs and devices are correctly positioned on the approaches to the work area</p> <p>2.4 Ensure that signs and devices are positioned and displayed on each approach</p> <p>2.5 Ensure signs and devices are positioned and displayed laterally</p> <p>2.6 Ensure traffic is controlled effectively to protect the work crew</p>
3 Monitor traffic guidance scheme	<p>3.1 Ensure traffic flow is monitored and effectiveness of guidance scheme determined</p> <p>3.2 Monitor work activities and provide guidance to adjust scheme</p> <p>3.3 Apply process for dealing with traffic controllers who fail to adhere to approved procedures</p> <p>3.4 Apply procedures to deal with offending motorists</p>
4 Close down traffic guidance scheme	<p>4.1 Ensure traffic is controlled to protect work crew removing traffic control devices</p> <p>4.2 Ensure signs are removed in sequence to provide maximum warning during removal</p> <p>4.3 Ensure guidance scheme details are recorded and reported as required</p> <p>4.4 Ensure incidents are recorded and reported as required</p>
5 Clean up	<p>5.1 Ensure work area is appropriately cleared</p> <p>5.2 Ensure tools and equipment are cleaned, checked, maintained</p>

	and stored
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Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIOHS302A Implement traffic management plan

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIWHS302D Implement traffic management plan

Modification History

Release	Comment
1	The unit replaces RIIOHS302A Implement traffic management plan.
2	Editorial corrections.
3	Amended Application field.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- works effectively with others to undertake and complete the traffic management plans that meet all of the required outcomes including:
 - complying with written and verbal reporting requirements and procedures
 - communicating clearly and concisely with others to receive and clarify work instructions
 - communicating clearly and concisely with others to resolve coordination requirements prior to commencing and during work activities
- demonstrates completion of implementing traffic management plans that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - complying with State/Territory regulations on three separate live traffic projects, and
 - completing one (1) project controlling site construction vehicles
 - identify and select traffic guidance scheme according to conditions
 - identify and select traffic guidance scheme according to conditions select and implement signage and device requirements, position and display according to site plan

- monitor and adjust scheme according to variances in requirements
- apply procedures to deal with non-compliant crew and motorists

Knowledge Evidence

The candidate must demonstrate knowledge of implementing a traffic management plan through:

- accessing, interpreting and applying legislative, organization and site requirements and procedures for:
 - JSAs/JSEA/Safe work method statement
 - potential hazards and risks
 - controlling traffic
 - basic signalling
 - signs and devices
 - radio operations
- identifying equipment types, characteristics, technical capabilities and limitations
- identifying site isolation and traffic control responsibilities and authorities
- identifying quality requirements
- applying civil construction terminology

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit is best assessed in the context of this sector's work environment;
- where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,

- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

SIRRINV001 Receive and handle retail stock

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to receive and store retail stock. It requires the ability to check stock quality and quantity against order requirements; store or present stock correctly; and maintain cleanliness of stock-handling areas.

This unit applies to all retail sectors and business sizes from large format stores to small independents. It applies to frontline personnel who have limited autonomy and work under close supervision and guidance of others in frontline operational roles. However; in smaller retail businesses, senior personnel also undertake this function.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Inventory

Unit Sector

Retail

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Maintain stock handling and storage

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1.Maintain cleanliness of stock handling and storage areas.
- 1.2.Ensure correct environmental conditions for storage of

- areas. perishable and other stock to prevent loss or damage as required.
- 1.3. Remove and dispose of waste to minimise safety risks and environmental impacts.
 - 1.4. Report hazards and potential hazards to relevant personnel to minimise safety risks.
2. Accept stock delivery.
 - 2.1. Check incoming stock quantities against order documentation.
 - 2.2. Inspect incoming stock quality, and accurately report quality issues or damage to relevant personnel.
 - 2.3. Record stock delivery, and report discrepancies with orders as required.
 - 2.4. Unpack and handle stock according to manufacturer instructions and safe manual handling techniques to avoid personal health risk and stock damage.
 - 2.5. Store or display stock promptly in designated location.
 3. Replenish stock levels.
 - 3.1. Rotate, replenish and present stock according to organisational requirements for stock levels.
 - 3.2. Record stock waste or shrinkage according to organisational procedures.
 - 3.3. Maintain optimal stock levels on retail shop floor.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

- Reading skills to:
- interpret:
 - plain English documents that outline organisational policies and procedures for stock control
 - basic order and delivery documentation and stock labels.
- Numeracy skills to:
- calculate stock levels.
- Planning and organising skills to:
- complete stock control activities in a logical and time efficient sequence.
- Technology skills to:
- use stock control technology to aid stock control processes.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

Assessment Requirements for SIRRINV001 Receive and handle retail stock

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- follow organisational policies and procedures, safe work practices and manufacturer instructions to perform each of the following stock control procedures:
 - receive and process incoming stock
 - store retail stock
 - maintain retail stock levels
 - maintain stock delivery records
- follow organisational stock control policies and procedures to process stock in each of the following situations:
 - stock quality is poor
 - stock quantity errors
 - incorrect stock is delivered
- maintain stock handling and storage areas, according to organisational policies and procedures, when completing the above stock control activities.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in the elements and performance criteria of this unit:

- principles of stock control procedures:
 - rotation and replenishment
 - product life cycle
- organisational stock control policies and procedures for:
 - receiving stock from suppliers
 - recording incoming stock
 - recording and reporting stock discrepancies and quality issues
 - recording stock waste and shrinkage
 - stock quality standards
 - unpacking, storage and display of stock
 - damaged or missing stock

- key features of retail products that relate to handling and storage:
 - handling techniques to minimise damage
 - general care
 - optimum storage conditions
 - features of damaged or spoiled stock
 - correct disposal methods
- safe manual handling techniques for moving and storing retail stock
- relevant legislation and standards relevant to receiving and storing retail stock.

Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure use of:

- manufacturer instructions for stock handling and storage
- organisational policies and procedures for stock handling and control
- retail stock display areas
- range of retail stock
- stock control documentation
 - delivery dockets
 - orders
 - reporting documentation
- stock receiving bay or area
- stock storage areas
- assessment activities that allow the individual to:
 - work within commercial speed, timing and productivity
 - manage tasks and contingencies in the context of the job role.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

SIRRV002 Control stock

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to process stock orders, maintain stock levels, minimise stock losses, manage stocktakes and maintain all documents that relate to the administration of any type of stock.

This unit applies to individuals responsible for stock control. They work within organisational systems and procedures, but make decisions about stock administration and may have responsibility for others.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Inventory

Unit Sector

Retail

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Monitor stock receipt and dispatch.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Implement organisational policies and procedures for receipt, dispatch and secure storage of stock.
- 1.2. Allocate tasks and monitor staff to ensure organisational procedures are followed, and documentation is completed

- correctly.
- 1.3. Confirm that stock quantity and quality inspections on receipt meet organisational standards.
 - 1.4. Act on variations to quantity and quality of delivered stock.
 - 1.5. Supervise safe stock handling and storage.
2. Maintain stock records.
 - 2.1. Monitor stock and maintain stock at required levels.
 - 2.2. Maintain, monitor and adjust stock reorder cycles as required.
 - 2.3. Provide clear information to team members about individual stock recording responsibilities.
 - 2.4. Maintain stock storage and movement records.
 - 2.5. Record and report stock discrepancies.
 - 2.6. Monitor stock performance and identify and report fast and slow-selling items.
3. Process and follow up orders.
 - 3.1. Process and raise stock orders according to organisational procedures.
 - 3.2. Monitor delivery of stock to ensure agreed deadlines and inventory requirements are met.
 - 3.3. Liaise with suppliers to ensure continuity of supply.
 - 3.4. Resolve routine supply problems or refer to appropriate personnel for action.
 - 3.5. Distribute stock within the organisation according to required allocations.
 - 3.6. Handle routine supply problems or refer to management as required by store policy.
4. Minimise stock losses.
 - 4.1. Regularly check storage of stock and ensure its protection.
 - 4.2. Identify, record and report stock losses.
 - 4.3. Identify avoidable losses and establish reasons for them.
 - 4.4. Recommend solutions and implement procedures to prevent future losses.
5. Coordinate stocktake or cyclical count.
 - 5.1. Explain procedures for stocktake and cyclical counts to team members.
 - 5.2. Allocate stocktaking tasks to individual team members ensuring effective use of staff resources to complete task.
 - 5.3. Provide team members with clear directions for performance of each task.
 - 5.4. Produce accurate reports for management on stocktake data, including discrepancies.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none">interpret supplier purchasing agreements, purchase orders, records of incoming stock and organisational policies and procedures for stock control.
Numeracy skills to:	<ul style="list-style-type: none">calculate:<ul style="list-style-type: none">supplier costs and complex order costscomplex details of stock on hand and stock losses and produce complex numerically-based reportsreconcile incoming stock and invoices against purchase orders.
Technology skills to:	<ul style="list-style-type: none">use business technology for inventory management.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

Assessment Requirements for SIRRINV002 Control stock

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- maintain and order stock across one stock cycle according to organisational procedures using all of the following stock processes:
 - receipt
 - dispatch
 - ordering
 - stock level monitoring
 - records maintenance
- produce three different stock control reports
- organise and coordinate one stocktake or cyclical count
- provide clear and correct information to team members involved in stock control processes.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for:
 - receipt and dispatch of goods, including inspection for quantity and quality
 - stock ordering and reordering
 - stock replenishment
 - stock rotation
 - reporting of stock discrepancies, damage and loss
 - safe transport, handling and storage of goods
 - stock control
 - stocktaking and cyclical counts
 - pricing, labelling and packaging
 - stock security
- key aspects of legislation and codes of practice relevant to stock control:
 - Australian Consumer Law
 - Work Health and Safety (WHS)

- manual handling
- licensing for mechanical movement of stock
- principles of stock control:
 - rotation and replenishment
 - product life cycle
- impact of business planning and sales forecasts on stock control
- types of stock control systems used in the sector
- reasons for stock loss and damage and methods to control these and protect stock.

Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- current plain English regulatory documents distributed by government regulators outlining key aspects of legislation and codes of practice relevant to stock control as listed in Knowledge Evidence
- a computerised stock control system
- stock for use in stock control activities
- organisational policies and procedures for stock control
- team members; these can be:
 - individuals in an industry workplace, or
 - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

SIRRMER001 Produce visual merchandise displays

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to display retail merchandise. It requires the ability to prepare, produce and maintain merchandise displays in accordance with visual merchandising requirements.

This unit applies to all businesses that sell retail merchandise. It applies to frontline personnel who have limited autonomy and work under close supervision and guidance of others in frontline operational roles. However; in smaller businesses, senior personnel might also undertake this function.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Merchandising

Unit Sector

Retail

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Prepare to produce visual merchandise display.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Review visual merchandising display guidelines, and seek clarification as required.
- 1.2. Obtain merchandise, materials and equipment required for

- the display.
- 1.3. Prepare product labels and price tickets from in-house documents and according to organisational requirements.
 - 1.4. Unpack merchandise according to manufacturer instructions.
2. Display merchandise.
- 2.1. Produce display following visual merchandising display guidelines.
 - 2.2. Ensure merchandise is displayed according to manufacturer instructions where specific requirements for display and storage exist.
 - 2.3. Display merchandise labels and price tickets according to organisational requirements.
 - 2.4. Handle and move stock and equipment according to safe manual handling guidelines to prevent injury to self.
 - 2.5. Promptly return excess stock to storage area, and store according to organisational requirements.
 - 2.6. Check and ensure area around the display remains clear of debris.
3. Maintain display.
- 3.1. Review displays against visual merchandising display guidelines, and refine as required.
 - 3.2. Maintain clear and correct product and pricing information for merchandise.
 - 3.3. Identify damaged or out of date stock, and remove from display as required.
 - 3.4. Rotate and replenish merchandise to maintain optimum stock levels.
 - 3.5. Monitor the display regularly to maintain appearance and cleanliness of display and display area.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

- Reading skills to:
- interpret plain English documents that outline organisational policies and procedures related to display of merchandise.
- Numeracy skills to:
- estimate dimensions of display areas and appropriate size of displays from display documentation.
- Planning and organising skills to:
- prepare for display and complete display activities in a logical and time-efficient sequence.
- Technology skills to:
- prepare product labels and price tickets.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

Assessment Requirements for SIRRMER001 Produce visual merchandise displays

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- follow merchandising display guidelines and organisational procedures to prepare and produce three merchandise displays, from the following list, of varying sizes and complexities:
 - an existing merchandise range
 - a new merchandise range
 - a seasonal merchandise range
 - a promotional event
 - discounted merchandise
- maintain each of the above displays and display area, adequate stock level and appearance of display.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- basic principles of visual merchandising as they relate to producing retail visual merchandise displays
- visual merchandise display guidelines and how they are used in creating a retail displays
- organisational procedures for:
 - correct manual handling techniques for protection of self and merchandise
 - correct storage of merchandise and equipment
 - damaged or out of date stock
 - maintenance of display areas
 - merchandise rotation and replenishment
 - product labelling and pricing
 - unpacking merchandise.

Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- a range of retail merchandise
- display areas
- retail display equipment and props
- product labels and price tickets
- ticketing and pricing equipment
- organisational visual merchandise display guidelines
- organisational procedures for:
 - manual handling techniques for protection of self and merchandise
 - storage of merchandise and equipment
 - damaged or out of date stock
 - maintenance of display areas
 - merchandise rotation and replenishment
 - product labelling and pricing
 - unpacking merchandise
- assessment activities that allow the individual to:
 - work within commercial speed, timing and productivity
 - manage tasks and contingencies in the context of the job role.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

SIRRMER003 Coordinate visual merchandising activities

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to coordinate store visual merchandising activities and ensure adherence to organisational standards, policies and procedures for the display of merchandise.

It applies to individuals working in frontline roles in a diverse range of retail industry sectors and business contexts that display retail products for sale. They operate with independence and under limited supervision and guidance from others, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Merchandising

Unit Sector

Retail

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Coordinate visual merchandise requirements.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Access and interpret organisational visual merchandising guidelines, and policies and procedures.
- 1.2. Communicate visual merchandising standards and display

- requirements to team members.
- 1.3. Plan appropriate timing for producing and dismantling visual merchandise displays.
 - 1.4. Communicate roles and responsibilities for visual merchandising to team members.
 - 1.5. Plan and coordinate promotional and special event displays as directed by management.
2. Supervise visual merchandise activities.
 - 2.1. Supervise construction and maintenance of displays to achieve balance and visual impact.
 - 2.2. Ensure display information accurately depicts product or service being promoted.
 - 2.3. Ensure displays are completed with minimum disruption to customer service and traffic flow.
 - 2.4. Ensure displays meet organisational standards and visual merchandise guidelines.
 - 2.5. Regularly monitor replenishment of merchandise and rotation of stock and take action to ensure optimal stock levels as required.
 3. Review impact of visual merchandise activities.
 - 3.1. Evaluate promotions or special event displays and determine impact on sales results.
 - 3.2. Report on visual merchandising activities to relevant personnel and make suggestions for improvements as required.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS

DESCRIPTION

Problem solving skills to:

- overcome difficulties relevant to the display of merchandise.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

Assessment Requirements for SIRRMER003 Coordinate visual merchandising activities

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- follow merchandising display guidelines, and organisational policies and procedures to coordinate visual merchandise activities for two of the following:
 - an existing merchandise range
 - a new merchandise range
 - a seasonal merchandise range
 - a promotional event
 - discounted merchandise
- for each of the above visual merchandising activities:
 - communicate requirements with team members
 - monitor visual merchandising displays and standards
- report on the effectiveness of the above merchandising activities.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for:
 - merchandise labelling and pricing
 - required stock levels
 - merchandise rotation and replenishment
- organisational visual merchandise standards and guidelines and their application to visual merchandising activities
- key aspects of relevant industry codes of practice, legislation and statutory requirements for coordinating merchandise presentation:
 - Australian Consumer Law
 - Work Health and Safety (WHS)
- objectives and use of visual merchandise displays
- interpretation of scaled versions of store design, layout and fixture placements
- techniques for creating effective visual merchandise displays:
 - types of displays and their impact

- display location
- display lighting
- display signage
- fundamental elements and principles of visual design and their use in the display and merchandise of products
- commercial impact of incorrect pricing both favourable and unfavourable:
 - customer complaints
 - profitability
- safe work practices for displaying merchandise with particular emphasis on:
 - safe use of equipment
 - safe manual handling techniques for bending, lifting and shifting heavy items
- product knowledge relevant to visual merchandise activities:
 - price
 - features
 - benefits.

Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- retail merchandise
- display areas
- retail display equipment and props
- product labels and price tickets
- ticketing and pricing equipment
- relevant documentation:
 - organisational visual merchandise display guidelines
 - organisational policies and procedures for:
 - merchandise labelling and pricing
 - required stock levels
 - merchandise rotation and replenishment
 - relevant industry codes of practice, legislation and statutory requirements for coordinating merchandise presentation:
 - Australian Consumer Law
 - Work Health and Safety (WHS)
- team members; these can be:
 - individuals in an industry workplace, or

- individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

SIRRRTF001 Balance and secure point-of-sale terminal

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to balance and reconcile a register or terminal in a retail environment, clear registers, count money, calculate non cash transactions, and reconcile and record takings.

It applies to individuals working in frontline operational roles in a diverse range retail industry sectors and business contexts. They operate with some independence under general supervision and guidance from others, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Retail Financials

Unit Sector

Retail

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Balance and secure takings.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1.Perform register or terminal balance at designated times.
- 1.2.Separate cash float from takings prior to balancing and secure takings.

- 1.3. Supply change to register or terminal and accurately record.
 - 1.4. Obtain and interpret register or terminal reading or print-out.
 - 1.5. Secure cash and non cash documents according to organisational procedures.
2. Reconcile takings.
- 2.1. Count cash accurately.
 - 2.2. Calculate non cash documents accurately.
 - 2.3. Determine balance between register or terminal reading and sum of cash and non cash transactions.
 - 2.4. Investigate or report discrepancies between register or terminal reading and sum of cash and non cash transactions to relevant personnel.
 - 2.5. Record takings and file records according to organisational procedures.

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

Assessment Requirements for SIRRRTF001 Balance and secure point-of-sale terminal

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- consistently apply organisational policies and procedures to:
 - balance a register or terminal on three occasions with complete accuracy
 - reconcile three different sets of takings comprising both cash and non-cash with complete accuracy
 - identify and resolve three different types of balancing discrepancies
 - process three different types of takings according to organisational policies and procedures.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- role and importance of the balancing process
- techniques for identifying and resolving discrepancies
- functions and procedures for operating point-of-sale equipment:
 - opening and closing
 - balancing
 - clearance of terminal and transference of tender
 - recording takings
 - consumables required by system
 - security
- cash handling procedures:
 - counting cash
 - handling cash floats
 - change required, denominations of change and tendering change
 - security
- organisational policies and procedures for non-cash transactions:
 - credit cards
 - EFTPOS

- vouchers
- organisational policies and procedures for:
 - exchanges
 - refunds
 - lay-by
 - cash handling
 - cash float
 - operation of point-of-sale equipment
 - register or terminal balance
 - security of cash and non cash transactions.

Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- organisational policies and procedures related to point-of-sale
- point-of-sale equipment and consumables
- financial transaction documentation for non-cash sales
- cash
- assessment activities that allow the individual to work with commercial speed, timing and productivity.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

SIRXADM001A Apply retail office procedures

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
Second Release	Editorial updates

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to apply retail office procedures. It involves processing mail, operating office equipment, filing and retrieving documents, establishing contact with customers and preparing simple correspondence.

Application of the Unit

This unit applies to sales and administrative staff who operate and maintain office equipment, receive and dispatch correspondence in a variety of formats, file and retrieve documents, communicate with internal and external customers, and prepare simple correspondence according to store policy and procedures.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
1. Process incoming and outgoing mail.	1.1. <i>Sort and dispatch incoming mail</i> to nominated recipients or locations. 1.2. Collect and check outgoing mail to ensure all items are correctly prepared for dispatch. 1.3. Record mail according to <i>store policy and procedures</i> . 1.4. Dispatch mail within designated time limits.
2. Process bulk mail.	2.1. Collate documents as required. 2.2. Sort and batch envelopes according to Australia Post specifications. 2.3. Lodge batched items for delivery.
3. Operate office equipment.	3.1. Identify appropriate <i>equipment</i> for intended application. 3.2. Operate equipment according to manufacturer instructions. 3.3. Identify and rectify equipment faults or report to <i>relevant personnel</i> . 3.4. Follow opening and shutdown processes according to store procedures. 3.5. Apply maintenance program for equipment to ensure down time is minimised.
4. File and retrieve documents.	4.1. <i>File documents</i> according to store policy. 4.2. Identify and retrieve documents as requested. 4.3. Update and modify existing records. 4.4. Remove, process and store designated inactive files according to store policy.
5. Establish contact with internal and external customers.	5.1. Use telephone system functions according to store policy. 5.2. Obtain and accurately record telephone and fax number or email <i>address</i> . 5.3. Answer incoming calls promptly and according to store policy. 5.4. Establish and clearly convey purpose of <i>contact</i> . 5.5. Transfer or place calls on hold as required. 5.6. Keep customers informed of delays and action being taken. 5.7. Record messages accurately and promptly return calls if

required.

- | | |
|-----------------------------------|---|
| 6. Prepare simple correspondence. | 6.1.Prepare and present correspondence for approval or signature according to set timeframes. |
| | 6.2.Write text using clear, concise language. |
| | 6.3.Use correct spelling, punctuation and grammar. |
| | 6.4.Use standard form letters according to store policy. |

Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- technical skills to operate a range of office technology
- planning and organising skills to complete tasks in a set timeframe
- literacy and numeracy skills to:
 - process, record and document information
 - generate a range of retail documents
- interpersonal communication skills to:
 - report equipment faults
 - answer telephone calls and keep customers informed of delays and action being taken through clear and direct communication
 - ask questions to identify and confirm requirements
 - share information
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication

Required Knowledge

- store policy and procedures in regard to:
 - store administration and clerical systems
 - receiving and dispatching incoming and outgoing mail
 - processing information
 - reporting problems and faults
- relevant regulatory and licensing requirements, such as:

- Work Health and Safety (WHS)
- privacy policies

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- applies procedures for the processing of mail, including bulk mail
- operates and maintains office equipment according to store policy and procedures
- files and retrieves documents according to store policy and procedures
- follows procedures for establishing contact with internal and external customers
- applies procedures for the preparation of simple correspondence.

Context of and specific resources for assessment

Assessment must ensure access to:

- a real or simulated work environment
- relevant documentation, such as:
 - store policy and procedures manuals
 - manufacturer instructions and operation manuals
- a range of retail equipment.

Methods of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of performance in the workplace
- a role play
- third-party reports from a supervisor
- customer feedback
- answers to questions about specific skills and knowledge
- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- SIRXICT001A Operate retail technology
- SIRXFIN002A Perform retail finance duties.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the performance criteria is detailed below.

- Procedures to ***sort and dispatch incoming mail*** may relate to:
- internal systems
 - Australia Post
 - courier services.
- Store policy and procedures*** in regard to:
- store administration
 - clerical systems
 - operating and maintaining retail equipment.
- Equipment*** may include:
- fax machine
 - telephone system
 - photocopier
 - answering machine or voicemail
 - public address system
 - paging system
 - franking machine
 - typewriters
 - computers
 - calculators
 - adapted equipment for people with a disability, for example, talking calculators, computer hard and software, and TTY.
- Relevant personnel*** may include:
- supervisor
 - team leader
 - manager.
- Systems used to record or ***file documents*** may be:
- manual
 - electronic.
- Contact*** may be established by:
- telephone
 - fax
 - email
 - letter
 - face-to-face contact.

Unit Sector(s)

Cross-Sector

Competency field

Administration

SIRXADM002A Coordinate retail office

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
Second Release	Editorial updates

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to coordinate a retail office. It involves maintaining office procedures, processing data in response to information requests, composing reports and correspondence, maintaining recording and filing systems and maintaining digital storage media and computer filing systems.

Application of the Unit

This unit applies to team member who coordinate a retail office, responding accurately and appropriately to requests for information and maintaining records and filing systems, including computerised records, according to store policy and procedures. Those with managerial responsibility undertake this unit.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element	Performance Criteria
Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
1. Maintain office procedures.	<p>1.1. Monitor, record and <i>order</i> office supplies as required according to <i>store policy and procedures</i>.</p> <p>1.2. Implement store policy and procedures in regard to <i>special requests and requirements</i>, according to set timeframes.</p>
2. Process data in response to information requests.	<p>2.1. Document requests for information and identify responses according to store policy.</p> <p>2.2. Identify <i>relevant external information sources</i>.</p> <p>2.3. Obtain <i>access to identified sources</i>.</p> <p>2.4. Access and extract <i>relevant information</i>.</p> <p>2.5. Identify and offer <i>options and alternatives</i> where available information does not match defined needs.</p> <p>2.6. Accurately copy or summarise extracted information.</p> <p>2.7. Compile and update appropriate records required for regulatory compliance to maintain security and confidentiality of contents.</p>
3. Compose reports and correspondence.	<p>3.1. Collate relevant information and edit as required.</p> <p>3.2. Use clear, concise, easily understood language when writing text.</p> <p>3.3. Use correct spelling, punctuation and grammar.</p> <p>3.4. Draft and set out correspondence and reports according to store policy.</p> <p>3.5. Produced edited report and dispatch to <i>relevant personnel</i>.</p> <p>3.6. Copy and securely file final report according to store policy.</p>
4. Maintain existing recording and filing systems.	<p>4.1. Maintain <i>recording and filing systems</i> according to store policy.</p> <p>4.2. Allocate new documents to designated category.</p> <p>4.3. Monitor the issue and return of documents to ensure the integrity of the system is maintained.</p> <p>4.4. Archive, remove and update documents to ensure appropriate space available for current records.</p> <p>4.5. Identify and locate required files and dispatch to nominated person or section within designated time limits.</p>

- 4.6. Monitor and record file and document movements.
 - 4.7. Maintain documents in good condition and in correct location.
 - 4.8. Separate confidential files from general files, with access available to nominated personnel only.
 - 4.9. Monitor security system to ensure issued files are traceable at all times.
5. Maintain computer storage media.
 - 5.1. Maintain storage media and filing system according to store policy and procedures.
 - 5.2. Format *digital storage media* using correct procedures.
 - 5.3. Create back up files to ensure safety, security and confidentiality of files is maintained.
 - 5.4. Store back up files in the designated manner and location.
 - 5.5. Regularly perform virus checks on the system and back up storage media.
 - 5.6. Store *hardware* according to manufacturer instructions.
 - 5.7. File and store software according to organisational procedures.
 - 5.8. Observe *Work Health and Safety (WHS) guidelines* relating to screen based equipment and ergonomic work stations.
 6. Maintain computer filing system.
 - 6.1. Determine document filing requirements.
 - 6.2. Create a filing system that reflects the size, nature and complexity of the workplace.
 - 6.3. Implement security checks where necessary.
 - 6.4. Add file names to the filing system as required.
 - 6.5. Update the filing system regularly by deleting or archiving old files.
 - 6.6. Exit programs according to screen prompts to preserve data.

Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

Required skills

- literacy and numeracy skills to:
 - process, record and document information
 - write reports
 - use various computer software packages
- interpersonal communication skills to:
 - deal with information requests through clear and direct communication
 - ask questions to identify and confirm requirements

- share information
- use language and concepts appropriate to cultural differences
- use and interpret non-verbal communication

Required knowledge

- store policy and procedures in regard to:
 - store administration and financial systems
 - systems and methods for organisation of work routine
 - appropriate clerical or office systems
 - mail procedures
 - transport procedures, including cab charge and courier systems
 - systems and procedures for processing information
- types and functions of records management systems
- types and functions of office technology, including:
 - computer
 - printer
 - software packages
 - installation of hardware and software packages
 - software licensing requirements
- relevant WHS requirements in relation to the retail office
- principles and techniques in interpersonal communication skills

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- consistently implements workplace office procedures
- responds accurately and appropriately to requests for information according to store policy
- consistently applies procedures for maintaining records and filing system, including computerised records.

Context of and specific resources for assessment

Assessment must ensure access to:

- a retail work environment
- sample policy and procedures in regard to:
 - store administration and clerical or office systems
 - processing of information

- format and technical vocabulary
- WHS legislation and codes of practice
- a range of office equipment, including:
 - computer
 - printer
 - software packages
 - a work team.

Methods of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of performance in the workplace
- third-party reports from a supervisor
- answers to questions about specific skills and knowledge
- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the performance criteria is detailed below.

Ordering procedures may include:

- fax
- phone
- email
- internet.

Store policy and procedures in regard to:

- store administration and clerical systems
- document format and technical vocabulary.

Special requests and requirements may include:

- mail
- ordering of stock
- bill payment
- taxation paperwork
- courier service
- transport, e.g. taxi, cab charge
- special mail procedures.

External information sources

- distributors

may include:

- suppliers
- manufacturers
- technical support personnel
- maintenance personnel.

Modes of *access to identified sources* may include:

- contact person
- contact details.

Relevant information may include:

- orders
- files
- letters
- correspondence
- warranties.

Options and alternatives may be limited by:

- regulatory requirements
- cost-effectiveness
- store policy.

Relevant personnel may include:

- relevant managers
- supervisor
- team leader.

Recording and filing systems may be:

- paper-based
- electronic.

Digital storage media may include:

- floppy disk
- USB drive
- zip disk
- CD-ROM
- DVD-ROM
- digital tape
- external hard drive.

Hardware may include:

- computer
- keyboard or typewriter
- printer
- scanner
- monitor
- mouse
- storage media.

OHS guidelines may include:

- lighting
- seating
- posture
- ventilation
- glare and reflection
- keyboard equipment and radiation
- eye strain

- setting up work stations.

Unit Sector(s)

Cross-Sector

Competency field

Administration

SIRXCEG001 Engage the customer

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to interact and communicate with a diverse range of customers to assist with basic enquiries and contribute to a service culture.

It applies to individuals working in frontline customer service roles in a diverse range of industry sectors and business contexts. They operate with some independence under general supervision and guidance from others, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Customer Engagement

Unit Sector

Cross-Sector

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Engage customers.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1.Greet customers in a polite and friendly manner within designated response times and make them a priority over other workplace duties.

- 1.2. Clearly communicate with customers using appropriate verbal and non-verbal communication.
- 1.3. Adapt communication style to appropriately communicate with customers from diverse backgrounds.
2. Assist customers.
 - 2.1. Identify and act on opportunities to assist customers and be available to assist customers when needed.
 - 2.2. Question and actively listen to customers to determine their needs.
 - 2.3. Resolve routine customer problems according to individual responsibility level and organisational policies and procedures.
 - 2.4. Address general customer enquiries and provide accurate information in a clear and courteous manner.
3. Contribute to a service culture.
 - 3.1. Act in line with organisational service standards to ensure quality customer service.
 - 3.2. Show interest in customer's needs and maintain a welcoming customer environment free of complacency.
 - 3.3. Seek assistance from relevant personnel when customer's needs are beyond scope of own responsibility.
 - 3.4. Identify and take opportunities to improve customer service standards.
 - 3.5. Refer customer service issues and feedback to relevant personnel for action.

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

Assessment Requirements for SIRXCEG001 Engage the customer

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- contribute to a customer service culture by providing customer service, in line with organisational service standards, across four different customer interactions
- for the above four customer interactions, individually or cumulatively involve:
 - customers from diverse backgrounds
 - resolution of two routine customer problems
 - provision of accurate information to address two general customer enquiries
 - referral of unresolved customer enquiry
 - use of effective communication techniques and positive body language.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational service standards and procedures for:
 - designated customer service response times
 - interacting with customers
 - solving routine customer problems
 - providing information to customers
- basic principles for achieving positive customer service
- verbal and non-verbal communication
- techniques for effective communication:
 - open and closed questioning
 - paraphrasing
 - effective listening
 - voice tonality and volume
- body language and its role in customer service
- effective communication strategies for interacting with customers of diverse backgrounds
- commercial impact of:
 - positive customer service
 - poor customer service

- organisational information and sources of information to assist customer with customer enquiries.

Assessment Conditions

Skills must be demonstrated in a services industry environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- relevant documentation:
 - organisational service standards and procedures for:
 - designated customer service response times
 - interacting with customers
 - solving routine customer problems
 - providing information to customers
- customers from a diverse range of backgrounds; these can be:
 - individuals in an industry workplace, or
 - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

SIRXCLM402 Manage store facilities

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
First Release	This is a revised unit, based on and equivalent to SIRXCLM002A Manage store facilities.

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to manage store facilities in a retail environment. It involves managing the store maintenance and housekeeping program, negotiating and monitoring maintenance contracts, and identifying and locating facilities requirements.

The unit covers the application of store policies and relevant legislation to the planning, coordination and implementation of activities associated with monitoring and maintaining premises, fittings, fixtures and equipment in a retail environment.

Application of the Unit

This unit applies to staff with managerial responsibility in a retail environment.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element

Performance Criteria

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

1. Manage store maintenance program.

- 1.1. Monitor and maintain premises, fittings, fixtures and equipment, according to *store policy and procedures* and *relevant legislation*.
- 1.2. Identify deficiencies in store maintenance procedures and take remedial action as required.
- 1.3. Obtain *expert or specialist advice* as required, according to store policy.
- 1.4. Initiate contingency plan within scope of authority in the event of maintenance problems.

2. Manage retail equipment maintenance.

- 2.1. Develop and implement procedures to ensure retail equipment is maintained according to store policy.
- 2.2. Monitor and implement maintenance program for retail equipment, according to manufacturer design specifications and store policy.
- 2.3. Identify and rectify equipment faults where possible, without undue delay.
- 2.4. **Report** equipment faults or failures, according to service agreements and store policy.

3. Negotiate maintenance contracts.

- 3.1. Negotiate maintenance *contracts* with contractors and suppliers according to store policy and procedures.
- 3.2. Negotiate and implement contract terms and conditions to maximise benefits for the store, and communicate to *relevant personnel*.
- 3.3. Monitor maintenance procedures to ensure products and tasks meet contract specifications.

4. Identify facilities and space requirements.

- 4.1. Identify facilities and space requirements to reflect business needs and volume, according to store policy and budget requirements.
- 4.2. Locate suitable facilities and space to facilitate expansion or change of use in line with store policy and procedures.
- 4.3. Consult, as required, with senior manager or business owner to determine optimum strategy for store space and location.

4.4. Maximise use of space, with consideration to existing configuration, to optimise the merchandising of existing and incoming stock.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication and interpersonal skills to:
 - ask questions to identify and confirm requirements
 - ensure listening and understanding
 - negotiate contracts and relay contractual requirements to staff
 - obtain expert or specialist advice
 - report faults
 - share information
 - use and interpret non-verbal communication
 - use language and concepts appropriate to cultural differences
- negotiation skills to negotiate maintenance contracts with contractors and suppliers
- literacy and numeracy skills to:
 - apply accounting processes and record data
 - develop, document and record procedures
 - estimate measurements and volumes
 - maintain records
 - read and interpret manufacturer instructions
 - work within a budget

Required knowledge

- store policy and procedures in regard to:
 - maintenance of store facilities
 - maintenance of retail equipment
- maintenance contract terms and options
- contract specifications
- relevant legislation and statutory requirements relating to managing store facilities, including:
 - work health and safety (WHS) legislation
 - food safety legislation and regulations
- relevant industry codes of practice relating to managing store facilities
- principles and techniques in:

- monitoring performance of contracts
- negotiating, in particular contract negotiation
- interpersonal communication

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- plans, coordinates and implements activities associated with monitoring and maintaining premises, fittings, fixtures and equipment according to store policy and procedures
- initiates contingency plans in response to maintenance problems as required
- proactively negotiates, monitors and implements maintenance contracts according to store policy and procedures
- identifies and uses space and facilities effectively
- evaluates and reports on effectiveness of maintenance contracts.

Context of and specific resources for assessment

Assessment must ensure access to:

- a retail work environment
- relevant documentation, such as:
 - maintenance contracts
 - store policy and procedures on maintenance of facilities, and contract negotiation
 - relevant legislation and statutory requirements
 - WHS
 - legislation and industry codes of practice
- a team
- equipment and technology.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of performance in the workplace
- case study or research report
- written or verbal questioning to assess knowledge and understanding

- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Guidance information for assessment Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the individual, accessibility of the item, and local industry and regional contexts) may also be included.

- Store policy and procedures*** in regard to:
- store maintenance
 - facilities management
 - reporting mechanisms
 - WHS
 - food safety.
- Relevant legislation*** may include:
- federal, state or territory and local legislation
 - food safety regulations
 - WHS.
- Expert or specialist advice*** may be sought regarding:
- point-of-sale terminals
 - EFTPOS terminals
 - computers, scanners and printers
 - pricing equipment
 - electronic bar coding equipment
 - portable data entry
 - electronic ordering equipment
 - wrapping and packing equipment
 - equipment for carrying or moving merchandise
 - equipment for storage of merchandise, including refrigerators
 - weighing machines
 - thermometers
 - security tag systems
 - trolley return equipment
 - fixtures and fittings
 - food preparation equipment.
- Faults may be ***reported***:
- verbally
 - in writing
 - by email
 - to service personnel

- to contractors
 - to relevant managers
 - to supervisor.
- Contracts:**
- may be negotiated internally and externally
 - may involve:
 - quality standards
 - building maintenance services
 - cleaning
 - security
 - electrical services
 - plumbing services
 - equipment maintenance.
- Relevant personnel** may include:
- managers
 - supervisors
 - specialist staff.

Unit Sector(s)

Cross-Sector

Competency Field

Cleaning and Maintenance

SIRXFIN002A Perform retail finance duties

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
Second Release	Editorial updates

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to perform retail finance duties. It involves processing petty cash and non-cash transactions, preparing banking documents, reconciling invoices for payment and preparing invoices for debtors.

Application of the Unit

This unit applies to team members who process petty cash, cash and non-cash transactions; reconcile and process banking; identify and rectify delivery and document discrepancies; and process invoices for creditors and debtors, according to store policy and procedures. These tasks are performed under some supervision.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
1. Process petty cash transactions.	1.1. Check petty cash claims for approval, accuracy and authenticity before processing. 1.2. Check and balance transactions according to <i>store policy and procedures</i> . 1.3. Note irregularities and refer to <i>relevant personnel</i> for resolution. 1.4. Process and record petty cash transactions within designated time limits.
2. Prepare banking documents.	2.1. Balance cashbook entries against record of takings. 2.2. Compile and balance deposit entries. 2.3. List cash and <i>non cash transactions</i> on banking deposit forms, according to the banking institution's guidelines. 2.4. Process in store credit systems according to store policy.
3. Process non cash transactions.	3.1. Balance non cash transactions and present <i>documentation</i> to relevant personnel for checking. 3.2. Note irregularities and refer to relevant personnel for resolution.
4. Reconcile invoices for payment to creditors.	4.1. Identify discrepancies between invoices and delivery notes and report to relevant personnel or section for resolution. 4.2. Identify errors in invoice charges and report to relevant personnel or section for correction or resolution. 4.3. Rectify discrepancies and errors as directed. 4.4. Process corrected and authorised invoices for payment within designated time limits. 4.5. Resolve creditor enquiries or refer to relevant personnel or section for resolution.
5. Prepare invoices for debtors.	5.1. Perform <i>preparatory calculations</i> to produce accurate customer invoices. 5.2. Complete relevant documentation to ensure accuracy of contents. 5.3. Distribute documents to relevant personnel or section for certification prior to being dispatched. 5.4. Dispatch verified documents within designated time limits. 5.5. Copy and <i>file</i> documents for auditing purposes.

Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

Required skills

- self management skills to complete tasks within a set timeframe
- literacy skills to interpret documentation
- numeracy skills to:
 - process petty cash transactions
 - receive and process deliveries
 - perform sales transactions
 - balance cashbook entries and takings
 - generate invoices
- interpersonal skills to:
 - refer and report irregularities, discrepancies and errors in transactions to relevant personnel
 - resolve creditor enquiries or refer to relevant personnel through clear and direct communication
 - ask questions to identify and confirm requirements
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication

Required knowledge

- store policy and procedures in regard to:
 - register or terminal balance
 - security of cash and non-cash transactions
 - petty cash
 - cash balances
 - banking procedures
 - purchase requisitions or orders
 - issuing of receipts
 - delivery dockets
 - credit notes
 - statements
 - remittance advices
 - cash register rolls
 - deposit books
 - change required and denomination of change
 - operation of equipment used at register or terminal

- processing delivery and delivery document discrepancies
- invoicing procedures for debtors and creditors
- payment and invoice procedures, including GST requirements
- cash and non-cash handling procedures, including:
 - opening and closing point-of-sale terminal
 - clearance of terminal and transference of tender
 - maintenance of cash balances
 - counting cash
 - calculating non-cash documents
 - customer credit ratings
 - balancing point-of-sale terminal
 - recording takings
 - change required and denominations of change
 - EFTPOS
 - credit cards
 - processing of cheques
 - gift vouchers
 - lay-by
 - cash on delivery (COD)
 - lay-by
 - credits and returns
 - customer refunds

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- consistently applies store policy and procedures in regard to petty cash and non-cash transactions, invoicing, banking processes and processing delivery and document discrepancies
- consistently applies skills related to the reconciliation and payments of invoices for creditors and debtors, according to store policy and procedures.

Context of and specific resources for assessment

Assessment must ensure access to:

- a real or simulated work environment

- relevant documentation, such as:
 - store policy and procedures manuals
 - financial transaction dockets, slips and invoices
 - banking deposit forms
- EFTPOS facilities and equipment
- registers and related equipment
- relevant financial management systems.

Methods of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of performance in the workplace
- a role play
- third-party reports from a supervisor
- answers to questions about specific skills and knowledge
- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- SIRXADM001A Apply retail office procedures
- SIRXICT001A Operate retail technology.

Range Statement

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

Store policy and procedures in regard to:

- store financial systems.

Relevant personnel may include:

- manager
- supervisor
- team leader
- specialist staff.

Non-cash transactions may include:

- EFTPOS and credit cards
- customer credit ratings
- cheques
- hire-purchase
- lay-by

Documentation may include:

- cash on delivery (COD)
- customer refunds.
- purchase requisitions
- purchase orders
- invoices
- receipts
- delivery dockets and receipts
- credit notes
- statements
- remittance advices
- cash register rolls
- deposit books.

Preparatory calculations may include:

- application of prior credit
- discounting
- quantity
- calculation of GST.

Methods used to **file** documents may include:

- manual
- electronic.

Unit Sector(s)

Cross-Sector

Competency field

Finance

SIRXICT001A Operate retail technology

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
Second Release	Editorial updates

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to operate a variety of retail equipment. It involves identifying the correct equipment required for a given task, maintaining retail equipment, applying keyboard skills and operating data entry equipment.

Application of the Unit

This unit applies to frontline service personnel who operate and maintain a range of retail equipment, including point-of-sale systems, keyboards and data entry equipment, according to manufacturer instructions, design specifications, store policy and designated timeframes. This work is undertaken with some supervision and guidance.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element	Performance Criteria
Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
1. Maintain retail equipment.	1.1. Identify purpose of <i>equipment</i> used in store or department. 1.2. Operate equipment, according to design specifications and <i>safety requirements</i> . 1.3. Identify equipment faults and report to <i>relevant personnel</i> . 1.4. Identify and apply maintenance program for retail equipment according to <i>store policy and procedures</i> .
2. Apply keyboard skills.	2.1. Operate keyboard using typing techniques within designated speed and accuracy requirements. 2.2. Enter and edit information accurately.
3. Operate data entry equipment.	3.1. Enter data using relevant equipment, according to store policy and procedures. 3.2. Operate price marking equipment, according to manufacturer instructions and store policy. 3.3. Enter data accurately and within designated time limits.

Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

Required skills

- planning and organising skills to complete tasks in set timeframe
- problem solving skills to deal with different types of transactions
- literacy and numeracy skills to:
 - read store procedures for operating equipment
 - enter data
 - perform point-of-sale transactions
 - follow common fault-finding procedures

Required knowledge

- store policy and procedures in regard to:
 - the operation and maintenance of store retail equipment
 - reporting problems and faults
- relevant legislation and statutory requirements in regard to operating retail technology, including Work Health and Safety (WHS) requirements
- relevant industry codes of practice
- purpose and impact of using electronic technology
- licensing requirements for carrying and moving merchandise (if applicable)

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- operates a range of store retail equipment according to store policy and procedures and industry codes of practice
- operates and maintains a range of store retail equipment according to manufacturer instructions and design specifications
- applies store maintenance program and reports faults and problems
- consistently applies safe working practices in the operation and maintenance of store retail equipment according to OHS legislation and codes of practice
- reads and interprets operation manuals to solve routine faults and errors and maintains and uses equipment effectively
- uses keyboard skills to enter and edit data accurately
- completes tasks in set timeframe.

Context of and specific resources for assessment

Assessment must ensure access to:

- a real or simulated work environment
- relevant documentation, such as:
 - store policy and procedure manuals
 - manufacturer instructions and operation manuals
- a range of store retail equipment.

Methods of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of performance in the workplace
- a role play
- third-party reports from a supervisor
- customer feedback
- answers to questions about specific skills and knowledge
- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the performance criteria is detailed below.

Equipment may include:

- point-of-sale terminals
- electronic bar coding equipment for price labelling and stocktaking
- portable data entry
- printers
- EFTPOS terminals
- electronic ordering equipment
- wrapping and packing equipment
- equipment for carrying or moving merchandise
- equipment for storage of merchandise, including refrigerators
- weighing machines
- thermometers
- security tag systems
- trolley return equipment
- computers
- scanners
- numerical keyboard equipment, including calculators.
- hazard identification (e.g. workplace inspections)
- emergency, fire and accident procedures
- personal safety procedures
- stress management
- procedures for the use of personal protective clothing and equipment

Safety requirements may include:

- Relevant personnel** may include:
- reporting incidents and accidents in the workplace.
 - supervisor
 - team leader
 - manager.
- Store policy and procedures** in regard to:
- store administration
 - clerical systems
 - operating and maintaining retail equipment
 - Work Health and Safety (WHS).

Unit Sector(s)

Cross-Sector

Competency field

Computer Operations and ICT Management

SIRXIND002 Organise and maintain the store environment

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to organise, clean and maintain the work environment to ensure optimal workplace appearance and safety.

It applies to individuals working in frontline operational roles in a diverse range of industry sectors and business contexts. They operate with some independence under general supervision and guidance from others, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Working in Industry

Unit Sector

Cross-Sector

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes

1. Clean the store environment.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1.Clean work areas according to work health and safety requirements and organisational procedures.
- 1.2.Use and store cleaning products and equipment according to manufacturer instructions.

- 1.3. Complete cleaning tasks safely and efficiently with minimum inconvenience to customers and team members.
2. Maintain the store environment.
- 2.1. Store products and equipment in designated storage areas to minimise hazards and maintain the store appearance.
- 2.2. Sort, recycle, and dispose of waste according to organisational procedures.
- 2.3. Ensure customer services and point of sale areas are adequately stocked to minimise disruption when serving customers.
- 2.4. Identify and remove potential workplace hazards within scope of responsibility, and report any unresolved hazards to relevant personal.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"> interpret manufacturers' instructions, warning labels and instructions for the use of chemicals and hazardous substances.
Numeracy skills to:	<ul style="list-style-type: none"> follow simple dilution ratios for cleaning products.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

Assessment Requirements for SIRXIND002 Organise and maintain the store environment

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- organise and maintain a designated work area, within a store environment, during three shifts
- correctly use cleaning products and equipment to perform two cleaning tasks within the store environment.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- common cleaning product labels that identify chemicals and hazardous substances and their meaning
- organisational policies and procedures relevant to the organisation and maintenance of the store environment:
 - work health and safety (WHS)
 - general housekeeping
 - personal hygiene
 - reporting problems and faults
 - point of sale stock requirements
 - use, maintenance and storage of cleaning products and equipment
 - use of hazardous cleaning substances
 - waste disposal, recycling and environmental protection.

Assessment Conditions

Skills must be demonstrated in a services industry environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- organisational policies and procedures for:

- work health and safety
- general housekeeping
- personal hygiene
- reporting problems and faults
- point of sale stock requirements
- use, maintenance and storage of cleaning products and equipment
- use of hazardous cleaning substances
- waste disposal, recycling and environmental protection
- cleaning products and equipment
- manufacturer instructions for use of cleaning equipment, cleaning materials and hazardous substances
- workplace waste for disposal
- work areas to be maintained
- assessment activities that allow the individual to work with commercial speed, timing and productivity.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

SIRXINV004A Buy merchandise

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This unit describes the performance outcomes, skills and knowledge required to buy merchandise in a retail environment. It involves analysing the market, planning the product range, establishing supplier relationships, negotiating supply of goods, introducing the product range, maximising profit and rationalising stock.

Application of the Unit

Application of the unit

This unit requires the consistent application of store policy and legislative requirements in regard to market analysis, planning merchandise and service ranges, procurement and rationalisation of stock, maintenance of supplier relations, quality control and staff merchandise training. The team member is required to recognise known and unknown loss and how it affects buying and ordering patterns, and to interpret and apply market trends to the store situation to create opportunities to improve sales and service while maximising profits.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units

Nil

Prerequisite units Nil

Employability Skills Information

Employability skills The required outcomes described in this unit contain applicable facets of employability skills. The Employability Skills Summary of the qualification in which this unit is packaged will assist in identifying employability skills requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Analyse market.	<p>1.1 Identify and analyse <i>store merchandise and marketing policy and procedures</i>.</p> <p>1.2 Monitor <i>customer requirements</i> formally and informally in order to evaluate market trends and customer needs.</p> <p>1.3 Research new products and services.</p> <p>1.4 Identify, evaluate, implement and review opportunities to improve sales.</p> <p>1.5 Monitor <i>merchandise range</i> to identify the demand for individual items and seasonal variations.</p> <p>1.6 Monitor market competition.</p>

ELEMENT	PERFORMANCE CRITERIA
2 Analyse factors affecting stock levels and range requirements.	2.1 Apply mathematical calculations to measure analyse and report on existing and potential stock loss and dissipation and its <i>impact on business operations</i> . 2.2 Analyse store or department sales figures to determine contribution rates of product lines. 2.3 Determine store or department space requirements and brand product mix according to store policy. 2.4 Determine future directions for merchandise ranges according to store policy.
3 Plan merchandise ranges.	3.1 Develop and implement buying plan according to outcomes of analysis and store policy. 3.2 Determine future directions for merchandise ranges according to store policy. 3.3 Liaise with <i>relevant personnel</i> to coordinate promotional and marketing activities. 3.4 Analyse store or department sales figures to determine contribution rates of product lines. 3.5 Determine investment levels with reference to previous years' sales figures, predicted demand and projected gross profit. 3.6 Identify and act upon contribution improvement opportunities. 3.7 Determine store or department space requirements and brand product mix according to store policy. 3.8 Determine stock levels according to peak seasons, special events and supplier lead time. 3.9 Analyse, evaluate and amend merchandise range and sources of supply according to management, staff and customer <i>feedback</i> .
4 Establish supplier relations.	4.1 Develop cooperative relationships with supplier representatives according to store policy. 4.2 Continuously review existing suppliers in regard to quality, profitability, service and delivery status. 4.3 Identify new suppliers and delete existing suppliers according to <i>performance indicators</i> .

ELEMENT	PERFORMANCE CRITERIA
5 Negotiate supply of goods.	<p>5.1 <i>Negotiate</i> and implement arrangements with suppliers according to store policy and procedures, and communicate to relevant personnel.</p> <p>5.2 Authorise special <i>pricing arrangements</i> and customer payment agreements and communicate to relevant staff and management personnel according to store policy.</p> <p>5.3 Monitor records of suppliers and stock for accuracy and legibility and take appropriate action where necessary.</p> <p>5.4 Identify <i>market factors</i> affecting supply and communicate to relevant personnel.</p> <p>5.5 Convey complete and accurate records of negotiations and agreements to relevant personnel within designated timelines.</p> <p>5.6 Take immediate corrective action where potential or actual problems with supply are indicated.</p> <p>5.7 Identify and develop new suppliers to maintain and improve sales and service delivery.</p> <p>5.8 Analyse, evaluate and amend stock range and source of supply according to management, staff and customer feedback.</p>
6 Monitor quality control.	<p>6.1 Establish merchandise quality standards with suppliers according to <i>legal requirements</i>, customer requirements and store policy.</p> <p>6.2 Monitor and ensure quality of merchandise during supply, manufacture and delivery processes.</p> <p>6.3 Record and analyse stock return figures against target figure.</p>
7 Introduce product ranges.	<p>7.1 Inform relevant personnel of new product ranges and advise on preferred location of merchandise.</p> <p>7.2 Implement <i>staff training</i> in product knowledge to introduce product range.</p> <p>7.3 Demonstrate or display new ranges to <i>staff</i> according to store merchandising plan.</p>

ELEMENT	PERFORMANCE CRITERIA
8 Maximise profit.	8.1 Calculate or estimate individual product range contributions against budget and targets. 8.2 Develop and implement product range assessment checks against budget and targets. 8.3 Calculate or estimate overall selling space contributions according to store merchandising plan. 8.4 Maximise profit margins in negotiations with suppliers. 8.5 Determine store pricing policies according to stated net profit margin in store merchandising plan and consumer law. 8.6 Negotiate specifications for <i>terms of trade</i> .
9 Rationalise stock.	9.1 Review and update stock range at regular intervals. 9.2 Identify stock lines to be <i>deleted</i> and take action to minimise adverse effect on profit. 9.3 <i>Consolidate stock</i> as required to maximise sales potential.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the essential skills and knowledge and their level, required for this unit.

The following skills must be assessed as part of this unit:

- evaluating and analysing:
 - market trends and projections
 - sales figures and investment levels
 - space requirements
- negotiation skills
 - interpersonal communication skills to:
 - liaise with relevant personnel
 - establish supplier relationships, negotiate supply of goods
 - provide information and training on product range
 - provide feedback and coaching through clear and direct communication

REQUIRED SKILLS AND KNOWLEDGE

- ask questions to identify and confirm requirements
- give instructions
- use language and concepts appropriate to cultural differences
- use and interpret non-verbal communication
- group presentation skills
- report writing
- using and applying technology, including electronic data interchange
- literacy and numeracy skills in relation to:
 - developing pricing policies
 - calculating and estimating product range contributions
 - calculating the cost of stock loss and dissipation
 - analysing stock figures.

The following knowledge must be assessed as part of this unit:

- store policy and procedures in regard to:
 - marketing
 - buying
 - profit margins
 - quality control
 - stock inventory levels: current and future
 - stock location and allocated areas
- staff product knowledge training
- industry and store information, including:
 - market needs
 - range of merchandise available
 - market competition
 - existing and possible new suppliers
 - channels of distribution
- relevant legislation and statutory requirements
- relevant industry codes of practice
 - pricing procedures, including GST requirements.

Evidence Guide

EVIDENCE GUIDE

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- consistently applies store policy and procedures, industry codes of practice, statutory requirements and regulations in regard to buying, merchandising and marketing practices
- applies market analysis, planning, procurement and rationalisation of stock and merchandise and service ranges, maintenance of supplier relations and quality control
- interprets market trends and applies these to the store situation to create opportunities to improve sales and services, while maximising profits
- analyses market and plans the introduction of a product and service range
- identifies suppliers, negotiates supply of goods, rationalises stock and monitors quality control
- trains and communicates information to and from staff or team members in regard to stock and merchandise and service range.

Context of and specific resources for assessment

Assessment must ensure access to:

- a retail work environment
- relevant information and documentation, including:
 - store policy and procedures
 - legislation and statutory requirements
 - industry codes of practice
 - merchandise and supplier data.

Methods of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of performance in the workplace
- third-party reports from a supervisor
- customer feedback

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- written or verbal questioning to assess knowledge and understanding
- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Assessing employability skills

Employability skills are integral to effective performance in the workplace and are broadly consistent across industry sectors. How these skills are applied varies between occupations and qualifications due to the different work functions and contexts.

Employability skills embedded in this unit should be assessed holistically in the context of the job role and with other relevant units that make up the skill set or qualification.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the performance criteria is detailed below.

Store merchandise and marketing policies may include:

- store culture
- current market position
- target market.

Customer requirements may be monitored by:

- questionnaires
- surveys
- observation.

Merchandise range may include:

- existing stock
- new stock.

RANGE STATEMENT

Impact on business operations may include:

- buying
- ordering patterns
- planning
- budgeting.

Relevant personnel may include:

- frontline staff
- relevant managers
- supervisor
- team leader
- specialist staff.

Feedback may be sought and given:

- verbally
- in writing
- in groups
- individually.

Performance indicators may include:

- price
- quality
- performance
- supply reliability
- merchandise range.

Negotiation process may include:

- face-to-face
- correspondence
- meetings
- telephone or electronic media.

Pricing arrangements may include:

- cash on delivery (COD)
- cheque
- credit card
- invoice
- GST.

Market factors may include:

- fashion trends

RANGE STATEMENT

- product availability
 - sales performance.
- Legal requirements* may include:
- sale of second-hand goods
 - Trade Practices and Fair Trading Acts
 - licence, patent or copyright arrangements
 - pricing procedures, including GST requirements.
- Staff training* may include:
- on-the-job
 - off-the-job
 - one-on-one coaching
 - any combination of the above.
- Staff* may include:
- full-time, part-time, casual or contract staff
 - people from a range of social, cultural and ethnic backgrounds
 - people with varying degrees of language and literacy levels.
- Terms of trade* may include:
- special buys
 - payment terms
 - promotional deals with supplier.
- Stock lines may be *deleted* due to:
- changes in store policy and culture
 - sales performance
 - customer requirements
 - fashion trends
 - product availability
 - problems with supply.
- Methods to *consolidate stock* may include:
- movement of stock between departments or stores.

Unit Sector(s)

Sector Cross-Sector

Competency field

Competency field Inventory

SIRXMER004A Manage merchandise and store presentation

Modification History

Not applicable.

Unit Descriptor

Unit descriptor This unit describes the performance outcomes, skills and knowledge required to manage merchandise and store presentation.

Application of the Unit

Application of the unit This unit requires the team member to apply knowledge of store merchandising to plan and manage store advertising and promotions, manage store pricing policies and housekeeping. It includes interpretation of and compliance with store layout and visual merchandising policies, developing and implementing procedures to manage merchandise pricing, and managing all aspects of store housekeeping, including contingency procedures. This role applies to frontline retail managers.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units Nil

Employability Skills Information

Employability skills The required outcomes described in this unit contain applicable facets of employability skills. The Employability Skills Summary of the qualification in which this unit is packaged will assist in identifying employability skills requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Manage store merchandising.	<p>1.1 Ensure layout and presentation support market position and promote customer flow according to store <i>visual merchandising policies and plans</i>.</p> <p>1.2 Develop and implement layout assessment checks.</p> <p>1.3 Define standards for visual presentations and displays and clearly communicate to all staff</p> <p>1.4 Consult floor staff to assess customer response to space allocations.</p>
2 Plan and manage store advertising and promotions.	<p>2.1 Manage and implement store policies and procedures, in regard to store <i>promotional activities</i>.</p> <p>2.2 Organise activities in line with anticipated or researched customer requirements.</p> <p>2.3 Manage <i>promotions</i> in order to achieve maximum customer impact.</p>

ELEMENT	PERFORMANCE CRITERIA
	2.4 Negotiate arrangements with suppliers in regard to special promotional activities.
	2.5 Coordinate store activities to complement shopping centre or retail complex promotions.
	2.6 Develop and implement assessment checks to measure effectiveness of promotions, including layout, visual impact and customer response.
	2.7 Document and report on promotional activities.
3 Manage store pricing policies.	3.1 Maintain store pricing according to <i>organisation pricing policies and procedures</i> in regard to pricing.
	3.2 Maintain accurate information on pricing trends and changes and communicate to relevant staff.
	3.3 Develop and implement procedures for pricing according to store policies and <i>legislative requirements</i> .
4 Manage housekeeping.	4.1 Develop and implement store policies and procedures in regard to <i>store housekeeping and maintenance</i> .
	4.2 Develop and manage rosters or schedules, ensuring store housekeeping standards are monitored and maintained.
	4.3 Initiate <i>contingency plan</i> in the event of merchandise or store presentation problems.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the essential skills and knowledge and their level, required for this unit.

The following skills must be assessed as part of this unit:

- providing feedback on performance
- interpersonal communication skills to:
 - communicate store standards and expectations to staff
 - consult floor staff
 - negotiate arrangements with suppliers, through clear and direct communication
 - ask questions to identify and confirm requirements

REQUIRED SKILLS AND KNOWLEDGE

- use language and concepts appropriate to cultural differences
- use and interpret non-verbal communication
- roster development
- report writing
- literacy skills in regard to:
 - researching, analysing and interpreting a broad range of written material
 - preparing rosters
 - preparing reports
 - documenting results

The following knowledge must be assessed as part of this unit:

- store policies and procedures, in regard to:
 - layout and presentation
 - advertising and promotions
 - pricing or marking down of goods, including risk assessment
 - housekeeping for premises, fittings, fixtures and equipment
 - store merchandise and service range
 - store merchandising plan
 - range and availability of new products and services
 - customer demand and market trends
 - product quality standards
- OHS legislation and codes of practice
- relevant legislation and statutory requirements
- relevant industry codes of practice
- pricing procedures, including GST requirements
- principles and techniques in:
 - visual merchandising
 - project management

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for this Training Package.

EVIDENCE GUIDE

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- collaboratively plans layout and presentation of merchandise according to store policies and procedures
- assesses effectiveness of layout and presentation according to sales targets or predetermined objectives
- collaboratively plans, coordinates and implements advertising and promotions activities according to store policies and procedures
- assesses and reports on effectiveness of advertising and promotions to staff and management according to store policies and procedures
- collaboratively plans, coordinates and implements pricing activities according to store policies and procedures
- collaboratively plans, coordinates and implements housekeeping activities according to store policies and procedures and OHS legislation, regulations and codes of practice.

Context of and specific resources for assessment

Assessment must ensure access to:

- a retail work environment
- relevant documentation, such as:
 - store policy and procedures manuals
 - store merchandising plan
 - legislation and statutory requirements
 - OHS legislation, regulations and codes of practice
- a work team.

Methods of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of performance in the workplace
- third-party reports from a supervisor
- customer feedback
- answers to questions about specific skills and knowledge.

Holistic assessment with other units relevant to the

EVIDENCE GUIDE

industry sector, workplace and job role is recommended.

Assessing employability skills

Employability skills are integral to effective performance in the workplace and are broadly consistent across industry sectors. How these skills are applied varies between occupations and qualifications due to the different work functions and contexts.

Employability skills embedded in this unit should be assessed holistically in the context of the job role and with other relevant units that make up the skill set or qualification.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the performance criteria is detailed below.

Visual merchandising policies and plans may include:

- target market
- market research
- store image
- store layout and space availability
- seasonal lines
- pricing policy.

Promotional activities may involve:

- external and in-store activities
- corporate or locally based activities
- dealing with advertising agencies and consultants.

Promotions may include:

- advertising
- catalogues
- newspapers
- posters

RANGE STATEMENT

- Organisation pricing policies and procedures* may include:
- radio or TV
 - suppliers
 - internet
 - website.
 - marking down of slow moving stock
 - soiled or damaged goods
 - goods close to use-by date
 - end of season stock
 - pricing policies, including GST requirements.
- Legislative requirements* may include:
- Trade Practices and Fair Trading Acts
 - consumer law.
- Store housekeeping and maintenance* may include:
- store premises
 - fittings
 - fixtures
 - equipment.
- Contingency plan* may include:
- major spillages
 - flood, storm or cyclone
 - breakages
 - blackout
 - break-in.

Unit Sector(s)

Sector Cross-Sector

Competency field

Competency field Merchandising

SIRXMER201 Merchandise products

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
First Release	This is a revised unit, based on and equivalent to SIRXMER001A Merchandise products.

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to merchandise products within a retail store. It involves the consistent application of store policies and procedures in regard to displaying, merchandising, ticketing, labelling, pricing and storing stock. It also includes the application of correct manual handling, storage and display techniques according to stock characteristics, industry codes of practice, and relevant legislation.

Application of the Unit

This unit applies to frontline retail personnel.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element

Performance Criteria

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

- | | |
|--|---|
| 1. Place and arrange merchandise. | <p>1.1.Unpack <i>merchandise</i> according to <i>store policy and procedures</i> and <i>legislative requirements</i>.</p> <p>1.2.Place merchandise on floor, fixtures and shelves in determined locations according to work health and safety (WHS) legislative requirements.</p> <p>1.3.<i>Display</i> merchandise to achieve a balanced, fully-stocked appearance and promote sales.</p> <p>1.4.Identify damaged, soiled or out-of-date stock and take corrective action as required according to store procedures.</p> <p>1.5.Place stock range in line with fixtures, ticketing, prices and bar codes.</p> <p>1.6.Rotate stock according to stock requirements and store procedure.</p> <p>1.7.Ensure stock presentation conforms to special <i>handling techniques</i> and other <i>safety requirements</i>.</p> |
| 2. Prepare and apply labels and tickets. | <p>2.1.Prepare <i>labels and tickets</i> for window, wall or floor displays according to store policy.</p> <p>2.2.Prepare tickets using electronic equipment or neatly by hand according to design specifications and store procedures.</p> <p>2.3.Identify soiled, damaged, illegible or incorrect labels and tickets and take corrective action according to store procedures.</p> <p>2.4.Use, maintain and store electronic ticketing and labelling equipment according to manufacturer's instructions and store procedures.</p> <p>2.5.Place labels and tickets visibly and correctly on merchandise.</p> <p>2.6.Replace labels and tickets according to store policy.</p> |
| 3. Maintain displays. | <p>3.1.Reset or dismantle unsuitable or out-of-date displays and <i>special promotion areas</i> as directed.</p> <p>3.2.Assist supervisor in selection of merchandise for display.</p> <p>3.3.Arrange and face up merchandise as directed and according to layout specifications and load-bearing capacity of fixtures.</p> <p>3.4.Maintain correct pricing and information on merchandise according to store procedures, industry codes of practice and</p> |

- legislative requirements.
- 3.5. Identify optimum stock levels and replenish stock according to store policy.
- 3.6. Remove excess packaging and maintain display areas in a clean and tidy condition.
4. Protect merchandise.
- 4.1. Identify and apply correct handling, storage and display techniques according to stock characteristics and legislative requirements.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- literacy and numeracy skills to:
 - prepare machine or manual labels and tickets
 - read and interpret store procedures and guidelines
 - read and interpret manufacturer instructions
- self-management skills to complete tasks in a set timeframe
- technology skills to operate and maintain manual and electronic labelling and ticketing equipment

Required knowledge

- store policies and procedures in regard to:
 - availability and use of display materials
 - correct storage of stock
 - correct storage procedures for labelling and ticketing equipment and materials
 - location of display areas
 - merchandise range
 - merchandising, ticketing and pricing of stock
 - scheduling for building or rotating displays
 - stock replenishment
 - stock rotation
 - store promotional themes, including advertising, catalogues and special offers
- correct manual handling techniques for protection of self and merchandise
- principles of display
- elements and principles of design and trends in retail design
- relevant WHS regulations, including:
 - manual handling
 - hygiene and sanitation

- hazardous substances
- labelling of workplace substances
- relevant legislation and statutory requirements relating to merchandising product
- pricing procedures, including inclusion and exclusion of GST
- relevant industry codes of practice relating to merchandising product

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment Evidence of the following is essential:

and evidence required to demonstrate competency in this unit

- applies store policies and procedures and legislative requirements in regard to displaying, merchandising, ticketing, pricing and storing stock
- displays merchandise on floor, fixtures, shelves and display areas, in determined locations, according to special manual handling techniques and other safety requirements
- prepares display labels and price tickets for merchandise with regard to store policies and procedures
- operates, maintains and stores a range of ticketing equipment according to:
 - store policy and procedures
 - industry codes of practice
 - manufacturer instructions and design specifications
- identifies damaged, soiled or out-of-date stock and takes corrective action as required by store procedures and legislative requirements
- maintains display areas and replenishes stock as required according to store procedures and legislative requirements
- performs correct manual handling, storage and display techniques.

Context of and specific resources for assessment

Assessment must ensure access to:

- a real or simulated retail work environment
- a range of ticketing and pricing equipment
- merchandise for display
- display materials and props

- cleaning materials
- relevant documentation, such as:
 - store policy and procedure manuals on housekeeping, merchandising and WHS
 - manufacturer instructions and operation manuals for electronic ticketing equipment
 - relevant legislation and industry codes of practice.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of performance in the workplace
- customer feedback
- answers to questions about specific skills and knowledge
- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- SIRXSLS201 Sell products and services
- SIRXSLS002A Advise on products and services.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the individual, accessibility of the item, and local industry and regional contexts) may also be included.

Merchandise may be characterised by:

- type
- brand
- size
- customer needs
- colour
- price.
- merchandising of stock
- preparing and displaying labels and tickets
- maintaining displays.
- pricing requirements, including GST requirements

Store policy and procedures in regard to:

Legislative

- requirements** may include:
- industry codes of practice
 - discounted items
 - Australian Consumer law.
- Display** may include:
- setting new displays
 - maintaining existing displays.
- Handling techniques** may vary according to:
- stock characteristics
 - store policy
 - legislative requirements
 - industry codes of practice.
- Safety requirements** may relate to:
- transport, storage and handling of goods
 - hazardous substances
 - labelling of workplace substances.
- Preparation of **labels and tickets** may involve:
- pricing gun
 - shelf tickets
 - shelf talkers
 - written labels
 - swing ticketing
 - bar coding
 - price boards
 - header boards.
- Special promotion areas** may be:
- permanent or temporary
 - interior or exterior
 - publicly accessible
 - windows
 - shelves
 - wall fixtures
 - on floor.

Unit Sector(s)

Cross-Sector

Competency Field

Merchandising

SIRXMER406 Monitor in-store visual merchandising display

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
First Release	This is a revised unit, based on and equivalent to SIRXMER003A Monitor in-store visual merchandising display.

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to interpret organisational visual merchandising plans and manuals and monitor in-store displays to ensure that they reflect and maintain current organisational visual merchandising directions.

It involves applying fundamental design principles, making decisions with regard to merchandise for display, and ensuring that displays contribute to the visual merchandising standards of the organisation and are constructed and located to ensure customer and staff safety.

Application of the Unit

This unit applies to frontline visual merchandising team members and other staff with a responsibility for monitoring displays to ensure they reflect and maintain current organisational visual merchandising directions.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element	Performance Criteria
Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
1. Interpret a visual merchandising plan.	1.1. Identify <i>design requirements</i> of visual merchandising plan or manual. 1.2. Source <i>resources required</i> to implement plan. 1.3. Identify <i>factors that may affect the plan</i> . 1.4. Apply organisation's visual merchandising standards to the plan.
2. Monitor display requirements.	2.1. Regularly monitor display to ensure it meets the requirements of the <i>visual merchandising plan</i> . 2.2. Identify <i>damage or changes to the display</i> . 2.3. Take action to rectify unwanted changes to the display.
3. Maintain displays in line with organisational requirements and plan.	3.1. Maintain display so that it is clean and tidy. 3.2. Make additions or changes to display to ensure it consistently adheres to the visual merchandising plan. 3.3. Maintain organisation's requirements for visual merchandising in the display.
4. Contribute to the visual merchandising standards of the organisation.	4.1. Interpret visual merchandising standards of the organisation. 4.2. Identify opportunities for improving visual merchandising standards. 4.3. Make contributions to the visual merchandising standards as appropriate.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- artistic interpretation skills to create displays according to visual merchandising standards
- communication skills to share ideas
- creative thinking skills to generate ideas for improving visual merchandising standards
- literacy skills to interpret visual merchandising manuals

- observation skills to identify damage to displays or deviations from visual merchandising standards
- practical skills to maintain and update displays according to the visual merchandising plan

Required knowledge

- basic design principles
- basic principles of visual merchandising
- work health and safety (WHS) requirements relating to monitoring displays
- organisation's visual merchandising principles
- resources required to implement visual merchandising plans
- procedures for safe use of tools, equipment and materials used in visual merchandising displays

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- interprets and identifies the design requirements of a visual merchandising plan
- monitors the display closely and completes regular maintenance to ensure it meets the requirements of the visual merchandising plan and the organisation's visual merchandising standards
- contributes appropriately to the ongoing development of the organisation's visual merchandising standards.

Context of and specific resources for assessment

Assessment must ensure access to:

- a real or simulated retail visual merchandising work environment
- relevant documentation, such as:
 - store policy and procedures manuals
 - store visual merchandising standards.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of performance in the workplace
- third-party reports from a supervisor
- customer feedback
- answers to questions about specific skills and knowledge.

Guidance information

Holistic assessment with other units relevant to the industry sector,

for assessment workplace and job role is recommended.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the individual, accessibility of the item, and local industry and regional contexts) may also be included.

Design requirements

may include:

- colours used
- functionality
- layout of display
- location of display in store
- merchandise for display
- size of display.

Resources required may include:

- fixtures and fittings
- lights
- materials
- people
- supports
- time.

Factors that may affect the plan may include:

- availability of display stands and structures
- availability of staff
- budget requirements
- merchandise availability
- store promotions
- time requirements.

Visual merchandising plan may include:

- display location
- retail image
- store plan and design.

Damage or changes to the display may include:

- changes in the appearance of the display
- damage to fixtures, fittings or display supports
- damage to items on display.

Unit Sector(s)

Cross-Sector

Competency Field

Merchandising

SIRXMPR001A Profile a retail market

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
Second Release	Editorial updates

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to profile a retail market.

Application of the Unit

This unit applies to personnel responsible for reviewing the image of the store, researching market demands, profiling store customers and implementing methods to attract customers to the store.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element	Performance Criteria
Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
1. Review the image of the store.	1.1. Analyse the <i>components of the store image</i> . 1.2. Access and analyse relevant <i>store documentation</i> in relation to store image. 1.3. Promote the store image in an appropriate manner.
2. Research market demands for the store.	2.1. Select an <i>appropriate area for research</i> of market demands. 2.2. Use appropriate <i>market research techniques</i> according to <i>store policy</i> . 2.3. Plan market research according to store policy and procedures. 2.4. Collect, analyse and present <i>data</i> in an appropriate manner.
3. Profile the store's customers.	3.1. Research the demography of the store's <i>customers</i> . 3.2. Develop a demographic <i>profile</i> . 3.3. Access information about <i>changing trends</i> and relate to <i>customer demands</i> .
4. Implement methods to attract customers to store.	4.1. Access and analyse information about the customer. 4.2. Generate <i>ideas</i> to develop <i>methods for attracting customers</i> . 4.3. Select and develop a suitable idea in collaboration with others in the organisation. 4.4. Present and discuss the idea with <i>relevant personnel</i> . 4.5. <i>Evaluate</i> the idea to ensure that it meets the requirements for the target customers.

Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

Required skills

- interpersonal skills to:
 - carry out market research
 - generate ideas and discuss with relevant personnel through clear and direct communication

- ask questions to identify and confirm requirements
- use language and concepts appropriate to cultural differences
- use and interpret non-verbal communication
- collaborate with team members
- literacy and numeracy skills to:
 - interpret store policy and procedures
 - conduct research
 - analyse data
 - generate reports

Required knowledge

- store policy and procedures in regard to:
 - accessing documentation
 - promoting store image
- market research methods
- evaluation methods
- creative thinking techniques
- techniques in interpersonal communication

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit Evidence of the following is essential:

- analyses components of the store image by accessing relevant store documentation
- promotes the store image in an appropriate manner
- researches market demands using appropriate market research techniques
- accurately profiles store customers
- generates ideas for attracting customers to store
- selects and develops a suitable idea in collaboration with others
- presents and discusses idea with supervisor
- evaluates idea to ensure that it meets requirements for target customers
- implements the idea according to store policies and budgetary requirements.

Context of and specific resources for assessment

Assessment must ensure access to:

- a retail work environment
- relevant documentation, such as:
 - store policy and procedures manuals
 - store documentation in relation to store image
 - market data.

Methods of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of the candidate in the workplace
- third-party reports from a supervisor
- case studies
- research reports
- written or verbal questioning to assess knowledge and understanding
- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the performance criteria is detailed below.

Components of the store image may include:

- logo
- products
- services
- layouts
- displays
- tickets
- visual merchandising
- promotional events and themes.

Store documentation may include:

- sales reports
- customer surveys
- market research.

Appropriate areas for research

- location

may focus on:

- consumer
- product
- brand
- price
- layout
- advertising.

Market research techniques

may include:

- interviews
- observations
- surveys
- questionnaires.

Store policy may relate to:

- marketing
- market research.

Data may include:

- internal: customer orders, random surveys, complaints, returns
- external: ABS statistics, books, newspaper reports, supplier information.

Customers may include:

- new or repeat contacts
- external and internal contacts
- business customers or individuals
- customers with routine or special requests
- people from a range of social, cultural and ethnic backgrounds and with varying physical and mental abilities.

Demographic **profile** may include:

- age
- buying power
- family structures
- employment patterns
- education levels
- tourism
- mobility
- occupations
- marital status
- cultural and ethnic background
- income levels
- population size.

Changing trends may include:

- tourism
- immigration
- technology
- selling approaches

Customer demands may vary according to:

- leisure time
- environmental issues
- discount operators
- quality demands
- advances in technology.
- preference
- health factors
- age
- cultural group
- dietary issues
- price.

Ideas may be generated using techniques such as:

- product association
- brainstorming
- visualising
- telling stories
- creative writing
- lateral thinking
- mind mapping, drawings
- using prompts.

Methods for attracting customers may include:

- advertising
- seasonal promotions
- new product launches
- public relations
- publicity.

Relevant personnel may include:

- team leader
- supervisor
- manager.

Methods used to **evaluate** ideas may include:

- developing checklists
- discussing the process with colleagues or supervisors
- writing a report of the outcomes.

Unit Sector(s)

Cross-Sector

Competency field

Marketing and Public Relations

SIRXPDK001 Advise on products and services

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to develop product and service knowledge and provide information to customers.

This unit applies to individuals working in frontline customer service and sales roles in a diverse range of industry and business contexts. They operate with some independence under general supervision and guidance from others, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Product Knowledge

Unit Sector

Cross-Sector

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Develop product and service knowledge.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Identify and access sources of information on products and services.
- 1.2. Interpret information about availability, features and benefits of products and services.

- | | |
|----------------------------------|--|
| | 1.3. Compare products and services based on product information. |
| | 1.4. Identify and use opportunities to update knowledge for the product and service range. |
| 2. Respond to customer requests. | 2.1. Answer customer questions about products and services with current and accurate information. |
| | 2.2. Use questions to clarify customer information needs. |
| | 2.3. Explain product and service details using clear communication. |
| | 2.4. Source additional information when answer to customer request is unknown or refer to relevant colleagues. |
| 3. Enhance information provided. | 3.1. Identify situations where additional information may assist the customer. |
| | 3.2. Advise on alternative products or services that may meet customer needs when requested item is not available. |
| | 3.3. Recommend complementary products, specials, new lines and promotions to customers according to their needs. |

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS

DESCRIPTION

Numeracy skills to:

- interpret pricing information.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

Assessment Requirements for SIRXPDK001 Advise on products and services

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- access and interpret sources of information on four different products or services
- respond to four different customer inquiries for product or service information that individually or cumulatively require provision of information on all of the following:
 - features and benefits
 - price
 - alternative products or services
 - complementary products or services.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for:
 - interactions with customers
 - product or service pricing
- basic key aspects of legislation that impact provision of information for the product or service range:
 - Australian Consumer Law
 - product or service specific legislation
- interpersonal communication techniques:
 - active listening and questioning
 - communication methods which convey information clearly and concisely
- product and service information for the product or service range:
 - features and benefits
 - price
 - care and handling of products
 - availability
 - storage requirements, shelf life and use by date
 - warranties

- ingredients or materials contained in product
- origins
- alternative products and services
- complementary products and services.

Assessment Conditions

Skills must be demonstrated in a services industries environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- a product or service range
- sources of product information
- relevant documentation:
 - current plain English regulatory documents distributed by government regulators outlining factors that impact provision of information for the product or service range
 - price lists
 - organisational policies and procedures relevant to product and service advice
- customers; these can be:
 - customers in an industry workplace, or
 - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

SIRXPRO007A Improve supply and distribution chains

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
Second Release	Editorial updates

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to identify, evaluate and implement ways to improve supply and distribution chains for a retail or wholesale business.

Application of the Unit

This unit applies to personnel who are responsible for identifying, evaluating and implementing ways to continuously review and improve the supply and distribution of products or services for a retail or wholesale business. It includes maintaining continuity of supply whereby inventory can meet requirements for production, sales, distribution and service commitments provided to another business or directly to the end customer.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element	Performance Criteria
Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
1. Confirm features of specific supply chains.	1.1. Determine position of the business in the supply chain. 1.2. Analyse features and impact of <i>business relationships</i> with <i>suppliers</i> to the business. 1.3. Establish <i>benchmarks</i> of supply chain efficiency.
2. Maintain information on suppliers.	2.1. Obtain and store <i>information on suppliers</i> of products and services to a retail or wholesale business according to <i>business policy and procedures</i> . 2.2. Update and regularly review information on suppliers of products and services to a business. 2.3. <i>Store information</i> on nature and feature of business relationship with suppliers to a retail or wholesale business and report, according to confidentiality, security, and business requirements.
3. Review distribution arrangements.	3.1. Review, compare and analyse sales, customer satisfaction and performance reports. 3.2. Review factors affecting supply of retail or wholesale products and services.
4. Devise policy and procedures for distribution and supply.	4.1. Establish policy and procedures for supply and distribution to business customers and end consumers. 4.2. Establish procedures to collect and analyse information on distribution chain management.
5. Forecast future contingencies affecting supply chain management.	5.1. Analyse forecasted market demand to confirm future requirements. 5.2. Communicate forward supply needs for the business to suppliers according to policy and contract provisions. 5.3. Confirm factors affecting forward purchasing and supply arrangements. 5.4. Set standards for supply of products and services to the business in qualitative and quantitative terms. 5.5. Communicate procedures for enforcing quality of supply to the business to relevant internal and external personnel.
6. Improve supply and distribution chain	6.1. Evaluate supply chain against agreed benchmarks and overall

- effectiveness. impact on business performance.
- 6.2. Benchmark comparative performance of supply chain against best in class or competitors.
 - 6.3. Assess *factors affecting future distribution and supply* of products.
 - 6.4. Make recommendations to relevant personnel to respond to opportunities for improvements in customer supply and distribution relationships.
 - 6.5. Confirm impact of proposed improvements to supply and distribution activities against budget and operational plans.
 - 6.6. Use prevailing trading terms to enhance supply and distribution chain management.
 - 6.7. Generate reports on business relationships with suppliers to the business using available business technology and agreed measures.
 - 6.8. Complete *reports* to *relevant personnel* (internal and external to operational unit) to promote recommended implementation of improvement to supply and distribution chain.

Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

Required skills

- interpersonal skills to:
 - communicate forward business needs to suppliers
 - communicate procedures to relevant internal and external personnel through clear and direct communication
 - ask questions to identify and confirm requirements
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication
- literacy and numeracy skills to:
 - interpret a range of workplace documentation
 - access and maintain information on suppliers
 - generate reports and recommendations for supply and distribution chain improvement to relevant personnel
- analytical skills to collect, organising and evaluate information
- management skills to:
 - implement benchmarks of supply chain efficiency
 - devise effective policy and procedures

Required knowledge

- relevant business policy and procedures
- principles and techniques in analysis, assessment, development and implementation
- approval processes and key personnel
- supply cycle
- supply chain for business and typical supply chain models used in different industry sectors and businesses
- procedures for collecting and analysing distribution chain management
- position of the business in the supply chain
- factors affecting supply and distribution management
- work and team priorities
- current forecasts and trends
- market information and data collection
- sales plans
- principles and techniques for measuring supply chain efficiency and quality standards
- Work Health and Safety (WHS) aspects of job
- relevant commercial law and legislation

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit Evidence of the following is essential:

- evaluates and seizes opportunities to improve supply chain for a product or service within an operational context
- identifies and understands a range of current and emerging supply chain management models
- applies tools to measure and quantify supply chain quality standards and efficiency for a retail or wholesale business
- develops clear and effective policy and procedures for wholesale or retail distribution or supply activities
- develops and implements realistic and measurable performance benchmarks for supply and distribution into a business.

Context of and specific

Assessment must ensure access to:

resources for assessment

- a retail or wholesale work environment
- relevant sources of supply chain information
- relevant documentation, such as:
 - policy and procedure manuals
 - supply and distribution reports
 - supplier records
- a range of suppliers.

Methods of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of performance in the workplace
- third-party reports from a supervisor
- written or verbal questioning to assess knowledge and understanding
- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the performance criteria is detailed below.

Business relationships may be influenced by:

- due diligence requirements
- risk sharing
- market position
- planning cycles and timing
- cost and price analysis
- terms and conditions agreed
- intellectual property and technology rights
- value management
- continuous improvement
- supply chain management
- infrastructural and capital outlay requirements
- organisational systems integration and compatibility.

Suppliers may be:

- commercial companies

Benchmarks may include:

- public agencies or organisations
- governments
- community and not-for-profit organisations
- internal.
- Australian standards
- international standards
- professional standards
- industry standards
- performance indicators
- quality measures and criteria
- planning milestones and timeframes
- manufacturer and supplier standards.

Information on suppliers may include:

- representative's name and contact details
- range of products and/or services
- transaction records
- contact history
- account terms
- prices
- dispatch and shipping procedures
- records of supplier performance
- details of items supplied or returned.

Business policy and procedures may relate to:

- purchasing
- supply and distribution of products or services
- approval processes
- storage and transport of goods.

Methods used to **store information** may be:

- manual
- electronic or digital.

Factors affecting future distribution and supply of retail or wholesale products and services may include:

- merchandise availability
- transport availability
- time requirements
- budget requirements
- logistics.

Relevant personnel may include:

- manager or supervisor
- colleagues
- business or area manager
- specialist or technical personnel.

Reports may be delivered:

- verbally
- in writing

- in groups
- individually.

Unit Sector(s)

Cross-Sector

Competency field

Product Management

SIRXRSK002 Maintain store security

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to maintain store security in a retail environment.

It applies to individuals working in frontline management roles in a diverse range of industry sectors and business contexts. They operate independently with some responsibility for others and decision making, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Risk Management and Security

Unit Sector

Cross-Sector

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Monitor and maintain store security.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1. Implement organisational policies and procedures to ensure store security is maintained.

1.2. Monitor and review security procedures continually and act on opportunities to improve store security.

1.3. Maintain security of merchandise, cash, points of sale and

- keys.
- 1.4.Ensure store security equipment is used and in correct working order.
 - 1.5.Report matters impacting store security to relevant personnel.
 - 1.6.Document breaches of security as required.
2. Facilitate security awareness.
- 2.1.Inform team members of organisational policies and procedures for security.
 - 2.2.Provide team members with feedback on their implementation or non-implementation of security procedures.
 - 2.3.Provide team members with ongoing supervision and training to facilitate security awareness.

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

Assessment Requirements for SIRXRSK002 Maintain store security

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- maintain store security over three different work shifts by:
 - monitoring adherence to organisational security policies and procedures
 - responding to two occurrences of non-adherence to security policies and procedures
 - communicating security policies and procedures to one team member
 - ensuring security equipment is utilised and in correct working order
 - reporting on opportunities for improved store security.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for:
 - use of security equipment
 - suspicious customer behaviour
 - suspicious team member behaviour
 - armed robbery
 - cash and non-cash security
 - merchandise security
 - theft
 - responding to security breaches
 - reporting security risks and breaches
 - surveillance of merchandise
 - personal security
 - general store security
 - team members' security training
 - security for opening and closing premises
 - reporting problems and faults
 - security of visitors, sales representatives, contractors and vendors
 - security risks likely to endanger customers or team members

- legislation as relevant to store security and own level of responsibility:
 - privacy laws
 - Australian Consumer Law
 - reporting procedures
- impacts of security breaches on individuals and organisation:
 - emotional distress
 - financial loss
 - commercial impacts
- common security risks within the retail workplace and techniques to:
 - identify risk
 - minimise risk
- types of store alarms and security systems used in industry.

Assessment Conditions

Skills must be demonstrated in a services industry environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- relevant equipment:
 - alarm systems
 - surveillance equipment
 - point-of-sale equipment
 - communication equipment
- relevant documentation:
 - current plain English regulatory documents distributed by government regulators legislation as relevant to store security and own level of responsibility as listed in Knowledge Evidence
 - organisational policies and procedures as listed in the Knowledge Evidence
- customers and team members; these can be:
 - individuals in an industry workplace, or
 - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

SIRXRSK404 Control store security

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
First Release	This is a revised unit, based on and equivalent to SIRXRSK004A Control store security.

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to control store security according to organisational policy and relevant legislation.

It involves developing and implementing security procedures for the prevention of theft, ensuring the safety of all personnel in the event of a robbery, and monitoring all security procedures.

Application of the Unit

This unit applies to team members responsible for facilitating the detection and prevention of theft and stock loss and the safety and security of staff and customers in the event of robbery.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element

Performance Criteria

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

- | | |
|--|---|
| <p>1. Develop store security procedures.</p> | <p>1.1.Consider store requirements and identify <i>security procedures</i> required to maximise safety of staff, customers and assets.</p> <p>1.2.Develop procedures to facilitate the detection and prevention of internal or external theft according to <i>organisational policy and procedures</i>.</p> <p>1.3.Develop procedures to ensure maximum safety and security of <i>staff</i> and customers in the event of robbery.</p> <p>1.4.Develop procedures for opening and closing premises and cash registers, cash security and <i>non cash transactions</i>.</p> <p>1.5.Finalise, document and process security procedures according to organisational policy.</p> |
| <p>2. Implement and monitor store security procedures.</p> | <p>2.1.<i>Communicate security procedures</i> to staff according to organisational policy and procedures.</p> <p>2.2.Implement and monitor security procedures to facilitate the detection and prevention of internal or external theft according to organisational policy and procedures.</p> <p>2.3.Implement and monitor procedures to ensure maximum safety and security of staff and customers in the event of robbery.</p> <p>2.4.Develop and implement procedures for opening and closing premises and cash registers, cash security and non cash transactions.</p> <p>2.5.Monitor and maintain implementation of security procedures.</p> |
| <p>3. Minimise stock loss and dissipation.</p> | <p>3.1.Measure and analyse existing, and extrapolate potential, stock loss or dissipation through theft.</p> <p>3.2.Report on stock loss or dissipation through theft, its <i>impact on business operations</i> and possible solutions.</p> <p>3.3.Establish and implement <i>stock control procedures</i> to monitor, control and minimise stock loss through theft.</p> |

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication and interpersonal skills to:
 - ask questions to identify and confirm requirements
 - converse clearly and directly with staff
 - use and interpret non-verbal communication
- literacy and numeracy skills to:
 - access and interpret store policy documents
 - calculate the cost of stock loss
 - document security procedures
 - handle cash
 - maintain records
- research and analysis skills to:
 - analyse stock control data
 - develop procedures
- problem-solving skills to establish and implement stock control procedures

Required knowledge

- organisational policy and procedures that relate to the development of store procedures for:
 - security
 - detection and apprehension of thieves
 - non-cash transactions
 - cash handling
 - stock control
- principles and techniques for:
 - detecting and preventing theft
 - ensuring safety of personnel in the event of robbery
- relevant codes of practice, legislation and statutory requirements, including:
 - industry codes of practice
 - retail case law or common law
 - state laws relating to property offences
 - work health and safety (WHS) legislation

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- develops and implements security procedures to facilitate the detection and prevention of theft
- develops and implements procedures to ensure safety and security of internal and external clients in the event of robbery
- calculates, analyses and reports on the cost and potential impact of identified loss and dissipation on:
 - buying
 - ordering patterns
 - planning
 - budgeting
- develops and implements procedures for:
 - opening and closing premises
 - cash security
 - non-cash transactions
 - stock control to minimise loss and dissipation
- communicates procedures to staff and monitors implementation.

Context of and specific resources for assessment

Assessment must ensure access to:

- a retail work environment
- relevant documentation, such as:
 - store policy and procedures on:
 - security
 - cash handling and non-cash transactions
 - stock control, including buying, ordering, planning and budgeting
 - relevant legislation and statutory requirements
 - industry codes of practice
 - WHS legislation and codes of practice
- a team
- a range of security equipment.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of performance in the workplace
- role play
- case studies
- written or verbal questioning to assess knowledge and understanding
- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Guidance information for assessment Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the individual, accessibility of the item, and local industry and regional contexts) may also be included.

Security procedures may relate to:

- armed robbery
- cash and cash movement
- customers
- equipment
- events likely to endanger customers or staff
- opening and closing of premises
- premises
- records
- staff and staff property
- stock
- theft
- visitors, sales representatives and contractors.

Organisational policy and procedures in regard to:

- cash handling
- non-cash transactions
- security
- stocktaking.

Staff may include:

- full-time, part-time, casual or contract staff
- people from a range of cultural, social and ethnic backgrounds
- people with a range of responsibilities and job descriptions
- people with varying degrees of language and literacy
- small work teams

- store team.
 - cheques
 - customer refunds
 - EFTPOS and credit cards
 - gift vouchers.
 - mentoring and coaching
 - on-the-job or off-the-job training
 - posters and pamphlets
 - simulated events.
 - budgeting
 - buying
 - ordering patterns
 - planning.
 - minimising out-of-date stock
 - minimising theft
 - monitoring stock levels
 - quality control
 - stocktaking and cyclical counts.
- Non-cash transactions* may include:
- Techniques used to *communicate security procedures* may include:
- Impact on business operations* may include:
- Stock control procedures* may include:

Unit Sector(s)

Cross-Sector

Competency Field

Risk Management and Security

SIRXSL001 Sell to the retail customer

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to deliver quality customer service and sell to retail customers. It requires the ability to determine customer needs, match products and services to their needs, and facilitate a sale.

This unit applies to all retail sectors and business sizes from large format stores to small independents. It applies to retail personnel at all levels who play a role in engaging with customers with the purpose of selling.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Sales

Unit Sector

Cross-Sector

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Establish customer needs.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Connect with the customer within designated response times and establish rapport.
- 1.2. Use questioning and active listening to facilitate effective two-way communication.

- 1.3. Observe and determine appropriate level of interaction based on customer verbal and non-verbal cues.
- 1.4. Determine and clarify customer preferences, needs and expectations.
2. Provide advice on products and services.
 - 2.1. Use product and service knowledge to tailor options to specific customer needs, and offer alternatives when product is unavailable.
 - 2.2. Clearly explain and promote product and service features and benefits where relevant.
 - 2.3. Advise on promotional events where relevant.
 - 2.4. Provide additional information to address customer questions and objections.
 - 2.5. Offer comparisons to competitor product or service range as required.
 - 2.6. Collaborate with the customer to determine product or service option most suited to their needs.
 - 2.7. Take opportunities to upsell and cross sell products and services that enhance customer request and maximise profitability of sale.
3. Facilitate the sale of products and services.
 - 3.1. Select and use appropriate techniques to close sale.
 - 3.2. Direct the customer to designated point-of-sale and process sale, as required, according to organisational procedures.
 - 3.3. Farewell customer on leaving, and invite to return.
 - 3.4. Provide any required after sales service according to organisational procedures.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

- Reading skills to:
- interpret:
 - detailed in-house and supplier product information documents
 - plain English documents that outline organisational customer service policy and procedures.
- Numeracy skills to:
- interpret basic fee information from in-house documents and complete basic pricing calculations.
- Problem-solving skills to:
- respond to customer objections and provide appropriate solutions to satisfy customer needs.
- Technology skills to:
- use technologies equipped with search functionality and information systems to source product and service information.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

Assessment Requirements for SIRXSL001 Sell to the retail customer

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- interact with four different retail customers to initiate and close the sale of different retail products or services
- demonstrate the following during the above customer interactions:
 - appropriate communication
 - establishment and clarification of customer needs, wants and expectations
 - product and/or service knowledge
 - appropriate sales approach to sell benefits and features of products and/or services
 - overcome objections and close sales
 - upsell and/or cross sell additional products and/or services that complement the sale
 - promotion of customer loyalty and repeat sales.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- appropriate body language for customer service
- basic principles of positive customer service and sales
- open and closed questioning techniques related to the sale of product and services
- verbal and non-verbal cues indicating customer understanding of information
- techniques for effective communication with customers of diverse backgrounds:
 - cultural diversity
 - special needs
- sales techniques:
 - opening techniques
 - recognising buying signals
 - strategies to focus customer on specific products and services
 - selling add-ons and complementary products
 - overcoming customer objections
 - closing techniques

- primary components of consumer protection laws that relate to selling products and services, especially organisational responsibility for supplying products and services as described or substituting suitable products and services when unable
- primary components of privacy law, and actions that retail business must take to protect privacy of customer information
- for the specific retail sector:
 - professional service standards and protocols for retail industry personnel
 - attitudes and attributes expected by the retail industry to work with customers
 - different customer service needs and expectations
- for the particular retail organisation:
 - product and service knowledge:
 - product and service range offering
 - product specifications, features and benefits
 - designated response times for providing customer service
 - customer service procedures including recording of and storing customer details.

Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- relevant documentation:
 - organisational policies and procedures for:
 - customer service
 - sale of products and services
 - resolving customer complaints
 - collection and storage of customer details
 - organisational product information and price lists
 - supplier brochures, information sheets and price lists
 - promotional activity information
 - current plain English regulatory documents distributed by government regulators for:
 - consumer protection law
 - privacy law
- customers with whom the individual can interact to sell products and services; these can be:
 - individuals in an industry workplace, or
 - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation

- assessment activities that allow the individual to:
 - work within commercial speed, timing and productivity
 - manage tasks and contingencies in the context of the job role.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

SIRXSL002 Follow point-of-sale procedures

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to follow point-of-sale work systems, process transactions and complete sales.

It applies to individuals working in frontline operational roles in a diverse range of industry sectors and business contexts. They operate with some independence under general supervision and guidance from others, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Sales

Unit Sector

Cross-Sector

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Follow point of sale work systems.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1.Open and close point-of-sale terminal at designated times and according to organisational procedures.
- 1.2.Clear point-of-sale terminal and transfer cash.
- 1.3.Handle cash according to organisational policies and

- procedures.
- 1.4.Maintain supplies of change at agreed levels in point-of-sale terminal to agreed levels.
 - 1.5.Maintain adequate supplies of consumables.
2. Process point-of-sale transactions.
 - 2.1.Identify transaction type and required procedure to be followed.
 - 2.2.Correctly interpret sale price information.
 - 2.3.Make accurate calculations for pricing and collection of payment.
 - 2.4.Enter accurate sale information into point-of-sale equipment.
 - 2.5.Confirm price to customer and check customer payment against sale value.
 - 2.6.Provide correct change for cash payments.
 - 2.7.Identify transaction errors, follow procedures for resolution and complete accurate records.
 3. Complete sales.
 - 3.1.Generate and complete documentation associated with the sale.
 - 3.2.Confirm and process any purchase follow up activities.
 - 3.3.Acknowledge and thank customer in line with organisational policy.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Numeracy skills to:	<ul style="list-style-type: none"> • interpret numerical information from various sources and calculate accurately with or without the use of a calculator. • measure or estimate quantities to calculate costs. • calculate percentage discounts.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

Assessment Requirements for SIRXSL002 Follow point-of-sale procedures

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- follow procedures for set up, maintenance and close of point-of-sale area/terminal on three different occasions
- perform three point-of-sale transactions for each of the following:
 - cash sales
 - non-cash sales
- perform three point-of-sale transactions for each of the following:
 - refunds
 - exchanges
- make six accurate financial calculations relating to product pricing that individually or cumulatively involve:
 - multiple products
 - products of varying prices
 - products with percentage discounts
- follow procedures to complete four sales that require post purchase activity.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for:
 - exchanges
 - refunds
 - lay-by
- basic key aspects of legislation that impact point-of-sale activities:
 - Australian Consumer Law
- features of products sold by the organisation
- functions and procedures for operating point-of-sale equipment:
 - opening and closing
 - clearance of terminal and transference of tender

- recording takings
- consumables required by system
- security
- cash handling procedures:
 - counting cash
 - handling cash floats
 - change required, denominations of change and tendering change
 - security
- procedures for non-cash transactions:
 - credit cards
 - EFTPOS
 - vouchers
- types of purchase follow up activities and associated organisational policies and procedures:
 - placing of orders
 - delivery
 - issuing of invoices
 - issuing of receipts
 - wrapping and packing.

Assessment Conditions

Skills must be demonstrated in a service industries environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- organisational policies and procedures for point-of-sale activities
- current plain English regulatory documents distributed by government regulators outlining key aspects of legislation that impact point-of-sale activities as listed in the Knowledge Evidence
- point-of-sale equipment and consumables
- financial transaction documentation for non-cash sales
- cash
- assessment activities that allow the individual to work with commercial speed, timing and productivity.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

SIRXSL303 Build relationships with customers

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
First Release	This is a revised unit, based on and equivalent to SIRXSL004A Build relationships with customers.

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to develop and maintain expert knowledge to provide accurate product information to customers, including post-sales support.

It also covers communication, analysis and sales techniques to plan and implement sales presentations, build positive relationships with customers, and resolve customer complaints to ensure positive business outcomes.

Application of the Unit

This unit applies to senior sales personnel.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element

Performance Criteria

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

1. Develop relationships with customers.

- 1.1. Establish rapport with *customers* and express genuine interest to *clarify customer requirements* and enhance *outcomes*.
- 1.2. Maintain *professional ethics* with the customer to promote store image and credibility.
- 1.3. Identify *customer needs and preferences* to maximise sales opportunities.
- 1.4. Maximise sales opportunities by use of add-on and complementary *sales techniques*.
- 1.5. Give customer space and time to evaluate purchase decision, while using time to maximum advantage for customer and store.
- 1.6. Use effective methods to close sales.

2. Apply expert knowledge.

- 2.1. Provide customer with accurate information regarding product and service appraisals, correct statements and warranties according to *legislative requirements*.
- 2.2. Provide detailed knowledge of supplier or manufacturer information according to customer needs and commercial confidentiality guidelines.
- 2.3. Provide evaluation of product range, demonstrate features and benefits of products or services where appropriate, and make recommendations to the customer to maximise sales potential.
- 2.4. Maximise customer interest in product or service through price negotiation where applicable and offer payment and credit options according to *store policy*.
- 2.5. Calculate prices and discounts according to pricing determinants and store policy.

3. Provide post-sales support.

- 3.1. Provide evidence of ongoing support as sale is concluded.
- 3.2. Explain *back-up service* and reassure customer according to legislative requirements and store policy.
- 3.3. Provide customer with store or salesperson's contact details to ensure customer follow-up according to store policy.
- 3.4. Enter customer and transaction details into *customer database* according to store policy.

4. Plan sales presentations.
 - 4.1. Plan presentation to complement *product characteristics*.
 - 4.2. Select client group according to product characteristics and store merchandising policy.
 - 4.3. Access *promotional materials* where required and distribute to client group.
 - 4.4. Select and prepare a range of products or services for presentation to reflect store image, demographics and merchandising plan.
5. Implement sales presentations.
 - 5.1. Ensure sufficient numbers of adequately briefed support staff, where required, for presentation.
 - 5.2. Apply communication skills to effectively create interest, focus attention, and encourage customer interaction with individuals or groups.
 - 5.3. Demonstrate products or services to create a buying environment.
 - 5.4. Measure results of sales presentation according to predetermined criteria, review overall performance and results, and apply information to enhance future *sales presentations*, according to store sales policy.
6. Maintain and use a customer database.
 - 6.1. Maintain customer confidentiality as required by store policy and legislative requirements.
 - 6.2. Develop and maintain accurate *customer records* and store securely according to store policy and procedures.
 - 6.3. Identify and follow up regular customers according to store marketing policy.
 - 6.4. Use customer records to advise customers on products and services of possible interest.
 - 6.5. Implement *customer loyalty schemes* where required according to store promotional activities.
7. Deal with difficult customers.
 - 7.1. Acknowledge customer complaints and problems and reassuringly support difficult customers to produce positive outcome.
 - 7.2. Use questioning and active listening to encourage customer to verbalise issue and minimise customer frustration.
 - 7.3. Develop customer's confidence in the candidate and product or service to promote long-term trust and commitment to store.
 - 7.4. Establish mutually acceptable resolution of complaint.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication and interpersonal skills to resolve conflict
- literacy and numeracy skills to:
 - access and read relevant product information
 - calculate prices and discounts
 - read store policies and procedures
 - record client and sales information
- sales skills to apply selling techniques, including:
 - add-ons and complementary sales
 - identifying buying signals
 - opening and closing techniques
 - overcoming customer objections
 - presenting product information
 - promoting enhanced sustainability features of selected products and services
 - using strategies to focus customer on specific merchandise

Required knowledge

- customer types and needs, including:
 - customer buying motives, customer behaviour and cues
 - functional and psychological needs
 - individual and cultural differences, demographics, lifestyle and income
- work health and safety (WHS) requirements relating to:
 - manual handling
 - plant and equipment
 - hazardous substances and dangerous goods
 - workers compensation
- relevant industry codes of practice, legislation and statutory requirements relating to building relationships with clients
- store policies and procedures in regard to:
 - efficient use of resources
 - establishing, maintaining and using customer records
 - methods of maintaining customer confidentiality and secure storage of customer details
 - price negotiation and payment and credit options
 - pricing, including GST requirements
 - resolving customer complaints
 - updating and maintaining customer mailing lists
- store and area merchandise and service range

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- applies:
 - detailed knowledge of manufacturer and supplier supply, back-up service and warranty information to enhance customer support
 - industry codes of practice, relevant legislation and statutory requirements in regard to selling products and services
 - store policies and procedures in regard to selling products and services, dealing with customers, planning and implementing sales presentations, and providing after-sales support
- develops customer commitment to store and builds return customer base by establishing rapport and relationship with customer, maintaining professional ethics, and discerning customer buying motives, requirements and preferences
- establishes, records and maintains customer records and details, maintaining customer confidentiality, ensuring secure storage of data, and using customer records to maximise customer interest and create a buying atmosphere
- evaluates personal or team sales performance to maximise future sales
- maximises sales opportunities by using effective selling techniques, applying detailed product knowledge, and using an appropriate sales approach to sell the benefits of products, overcome objections and close sales
- plans, prepares and conducts sales presentations and briefs
- supports staff where required, to create a buying environment and maximise sales performance
- resolves customer complaints by acknowledging problems and supporting customer to produce positive outcomes and obtain mutually acceptable complaint resolution
- uses effective questioning, listening and observation skills to determine customer requirements.

Context of and specific resources for assessment

Assessment must ensure access to:

- a retail work environment
- relevant sources of product information
- relevant documentation, such as:

- policy and procedures manuals
- industry codes of practice and relevant legislation
- WHS legislation and codes of practice
- a range of customers with different requirements
- an appropriate range of products and equipment
- a customer database system.

Method of assessment A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of the candidate in the workplace
- customer feedback
- written or verbal questioning to assess knowledge and understanding
- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Guidance information for assessment Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the individual, accessibility of the item, and local industry and regional contexts) may also be included.

Customers may include:

- a single customer, couples, families or groups
- customers with routine or special requests
- internal and external contacts
- new or repeat contacts
- people from a range of social, cultural and ethnic backgrounds
- people with varying physical and mental abilities.

Clarification of customer requirements may be achieved by:

- active listening
- appropriate questioning
- empathy
- observation
- reassurance and confirmation.

Outcomes may include:

- credibility of store
- customer commitment

- Maintaining *professional ethics* with the customer may include:
- customers' trust
 - increased return customer base.
 - confirmed appraisals of products and services
 - honesty
 - positive statements.
- Customer needs and preferences* may include:
- brand
 - customer physical needs
 - price
 - product characteristics
 - product type
 - size.
- Sales techniques* will include:
- add-on and complementary products and services
 - selling up or down
 - suggestive selling
 - variety of methods of closing sales.
- Legislative requirements* may include:
- environmental protection legislation
 - health and welfare law specific to local government, state and federal legislation
 - liquor laws
 - WHS
 - pricing procedures, including GST requirements
 - privacy laws
 - sale of second-hand goods
 - tobacco laws
 - Australian Consumer Law and fair trading Acts
 - transport, storage and handling of goods.
- Store policy* and procedures in regard to:
- dealing with difficult customers
 - maintaining and using client records
 - promotional, marketing, discounting and reward programs
 - resolving customer complaints
 - selling products and services.
- Back-up service* may include:
- delivery specifications
 - financial products and services
 - installation
 - returns policies
 - technical support
 - warranties and guarantees.
- Customer database* may be:
- computer-based
 - manual.

- Product characteristics*** may include:
- features and benefits
 - price range
 - supplier or manufacturer information
 - target group.
- Promotional materials*** may include:
- brochures
 - business cards
 - pamphlets
 - posters
 - promotional merchandise
 - vouchers.
- Sales presentations*** may be:
- at client site
 - in-house
 - verbal
 - visual.
- Customer records*** may include:
- anniversaries and special dates
 - details of items bought or returned
 - name and contact details
 - personal preferences
 - transaction records.
- Customer loyalty schemes*** may include:
- credit or discount facilities
 - customer clubs
 - customer reward schemes
 - special offers.

Unit Sector(s)

Cross-Sector

Competency Field

Sales

SIRXSL406 Manage sales and service delivery

Modification History

The version details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
First Release	This is a revised unit, based on and equivalent to SIRXSL005A Manage sales and service delivery.

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to monitor, maintain and improve sales and service delivery. It involves market research, developing new markets, and marketing products and services within the culture of the overall store policy.

The unit requires the team member to develop and maintain excellence in sales and service delivery by ensuring the provision of a well-resourced working environment for fellow staff. The team member is required to proactively pursue the continuous improvement of operations by seeking, evaluating and reporting feedback from customers and colleagues on sales and service delivery and working conditions; and locating and negotiating adequate supply of stock and other necessary resources according to store policy.

Application of the Unit

This unit applies to staff with managerial responsibility.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

Element	Performance Criteria
Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
1. Establish and respond to customer requirements.	<p>1.1. Plan and develop strategies to enhance provision of customer service according to store policy.</p> <p>1.2. Research and <i>analyse customer needs</i> in regard to local geographic and cultural issues.</p> <p>1.3. Resolve <i>customer</i> complaints referred by <i>staff</i>, according to store policy.</p> <p>1.4. Monitor sales and service targets and plans to ensure that customer requirements are met, and take appropriate remedial action if required.</p> <p>1.5. Encourage staff to take responsibility for meeting customer requirements.</p> <p>1.6. Seek and use feedback from customers to improve future operations.</p>
2. Monitor, maintain and improve sales and service delivery.	<p>2.1. Implement, communicate and review <i>policies and procedures for sales and service delivery</i> on a regular basis.</p> <p>2.2. Maintain adequate <i>resource</i> allocation for client service provision in line with <i>store policy and procedures</i>.</p> <p>2.3. Ensure sales and service targets and plans are consistent with quality and functional <i>specifications</i>.</p> <p>2.4. Communicate sales and service targets and plans to <i>relevant personnel</i> according to implementation schedules.</p> <p>2.5. Provide <i>feedback</i> to staff on operations and outcomes.</p> <p>2.6. Take corrective measures to minimise <i>factors that may cause disruption to operations</i>.</p> <p>2.7. Monitor and evaluate effectiveness of corrective actions for future operational planning.</p> <p>2.8. Ensure current and accurate <i>records</i> on sales are available to authorised personnel.</p>

- 2.9. Interpret and act on relevant reports as required.
3. Negotiate supply of goods.
- 3.1. *Negotiate* and implement *arrangements with suppliers*, according to store policies and procedures, and communicate to relevant personnel.
- 3.2. Authorise and communicate special pricing arrangements and customer payment agreements to relevant staff and management personnel according to store policy.
- 3.3. Monitor records of suppliers and stock for accuracy and legibility and take appropriate action where necessary.
- 3.4. Identify and communicate market factors affecting *supply* to relevant personnel.
- 3.5. Convey complete and accurate records of negotiations and agreements to appropriate personnel within designated time limits.
- 3.6. Take immediate corrective action where potential or actual *problems with supply* are indicated.
- 3.7. Identify and develop new suppliers to maintain and improve sales and service delivery.
4. Provide productive work environment.
- 4.1. Establish and maintain a sufficient supply of resources of the necessary quantity and quality to meet customer requirements.
- 4.2. Regulate and monitor access to and use of resources for maximum efficiency and sustainability.
- 4.3. Maintain staff working conditions to meet requirements of *relevant legislation* and store policy.
- 4.4. Ensure that maintenance frequency and use of equipment conform to recommended schedules and procedures.
- 4.5. Replace, repair or adapt resources that do not meet requirements as soon as practicable and with minimum disruption to work activity.
- 4.6. Communicate *recommendations* for improving conditions to relevant personnel within designated timeframe.
- 4.7. Maintain complete, accurate records and make them available to authorised personnel.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication and interpersonal skills to:
 - ask questions to identify and confirm requirements
 - communicate with staff through clear and direct communication
 - negotiate with suppliers and customers
 - present information
 - share information
 - use and interpret non-verbal communication
 - use language and concepts appropriate to cultural differences
- literacy and numeracy skills to:
 - calculate costs and pricing arrangements
 - document results
 - estimate volume
 - interpret and maintain data
 - prepare reports
 - research, analyse and interpret a broad range of written material
- technical skills to use new technology

Required knowledge

- customer demand and market trends
- principles and techniques for:
 - interpersonal communication
 - purchasing and supply specifications
 - stock control
- product quality standards
- range and availability of new products and services, especially those with enhanced sustainability features
- relevant industry codes of practice applicable to the sales environment
- relevant legislation and statutory requirements, including work health and safety (WHS) requirements applicable to the sales environment
- store merchandise and service range
- store merchandising plan
- store policies and procedures in regard to:
 - efficient and sustainable use of resources
 - pricing procedures, including GST requirements
 - quality assurance and control
 - sales and service delivery
 - stock maintenance and control
 - supply specifications

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- maintains, monitors and evaluates sales and service delivery
- communicates sales and service targets and plans and provides feedback on operations and outcomes to relevant personnel according to store policy
- proactively improves sales and service delivery operations
- interprets and maintains data on sales and services delivery
- negotiates and arranges supply of goods according to store policy and procedures
- authorises pricing and payment agreements according to store policy and procedures
- maintains, monitors and evaluates supply of stock.

Context of and specific resources for assessment

Assessment must ensure access to:

- a retail work environment
- relevant documentation, such as:
 - policy and procedures manuals
 - sales and service delivery targets and plans
 - records of sales and service
 - legislation and statutory requirements
 - industry codes of practice
 - WHS legislation and codes of practice
- suppliers
- a team.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of the candidate in the workplace
- customer feedback
- research report
- written or verbal questioning to assess knowledge and understanding
- review of portfolios of evidence and third-party workplace reports of on-the-job performance.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Methods used to ***analyse customer needs*** may be:

- qualitative
- quantitative.

Customer may include:

- customers with routine or special requests
- internal and external contacts
- new or repeat contacts
- people from a range of social, cultural and ethnic backgrounds
- people with varying physical and mental abilities.

Staff may include:

- full-time, part-time, casual or contract staff
- people from a range of social, cultural and ethnic backgrounds
- people with varying degrees of language and literacy levels.

Policies and procedures for sales and service delivery may involve:

- customer complaints
- customer service and sales training
- service standards
- staff induction
- staff presentation.

Resource may include:

- equipment and technology
- finances
- materials
- people
- time.

Store policy and procedures in regard to:

- interaction with customers
- interaction with other team members
- WHS
- quality assurance and control
- acquisition and sale of products and services.

Specifications may include:

- customer agreements
- operational means for meeting agreements
- specific functional duties within the organisation.

Relevant personnel may

- managers

- include:
- members of own or other work teams
 - supervisors.
- Feedback** may be sought and given:
- in groups
 - in writing
 - individually
 - verbally.
- Factors that may cause disruption to operations** may include:
- operational resources
 - quality of materials
 - supply.
- Records** may be:
- electronic
 - hard copy.
- Techniques used to **negotiate** with suppliers may include:
- correspondence
 - email
 - face-to-face contact
 - meetings
 - telephone.
- Arrangements with suppliers** may relate to:
- credit levels
 - delivery
 - partnerships and exclusivity
 - pricing.
- Sources of **supply** may include:
- external organisations
 - internal departments and teams
 - internal and external personnel.
- Problems with supply** may involve:
- cost
 - coverage or content
 - quality
 - quantity
 - time schedules or scales.
- Relevant legislation** may include:
- equal employment opportunity and anti-discrimination laws
 - federal, state and local legislation
 - WHS.
- Recommendations** may be communicated to:
- colleagues, specialists, staff from other departments
 - external organisations with a health, safety or environmental responsibility
 - government bodies
 - higher-level managers
 - subordinates.

Unit Sector(s)

Cross Sector

Competency Field

Sales

SISXRES001 Conduct sustainable work practices in open spaces

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to plan and conduct work in open spaces while upholding sustainable practices. This unit requires the ability to conduct research of the current land condition, capability, uses and practices, and develop and implement strategies to achieve sustainable practices for outdoor programs and activities.

This unit applies to operation or program managers who are responsible for planning, implementing and evaluating sport, recreation or fitness programs and activities across a range of activity areas. They work autonomously with responsibility for management of resources and upholding of sustainable work practices.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Resource Management

Unit Sector

Cross-Sector

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes

1. Plan sustainable

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Determine opportunities and options for using open space

- activities for work in open spaces.
- within the local community.
- 1.2 Review and document relevant codes of practice and local government requirements for use of open space.
 - 1.3 Consult with colleagues and other stakeholders about issues of responsibility for environmental and social sustainability.
2. Conduct minimal impact activities.
 - 2.1 Select and use minimal impact techniques and procedures appropriate to the area.
 - 2.2 Conduct activities using positive sustainable outcomes for local communities and environments.
 - 2.3 Advise clients of appropriate behaviours in open space environments and address any unacceptable behaviours.
 3. Monitor impacts and changes.
 - 3.1 Monitor and record changes in the natural environment using appropriate technology.
 - 3.2 Collect environmental information on behalf of environmental agencies or local government as required.
 - 3.3 Advise appropriate authorities of environmental and social change promptly.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"> • analyse data on conservation strategies • research usage and potential usage.
Writing skills to:	<ul style="list-style-type: none"> • develop a plan to improve efficiency while drawing on data analysis.
Learning skills to:	<ul style="list-style-type: none"> • maintain currency of information related to sustainable practices in open spaces.
Problem-solving skills to:	<ul style="list-style-type: none"> • assess threats and opportunities • compare conservation strategies and select appropriate strategies • monitor and evaluate the effectiveness of strategies and develop alternative strategies where appropriate • identify current use of resources • develop strategies to maximise efficiency of resource use.
Planning and organising skills to:	<ul style="list-style-type: none"> • work within identified timeframes and budgets • plan, implement and monitor strategies for optimal resource use

- establish criteria to evaluate open spaces.
 - apply sustainable work practices on an ongoing basis.
- Self-management skills to:

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1ca50016-24d2-4161-a044-d3faa200268b>

Assessment Requirements for SISXRES001 Conduct sustainable work practices in open spaces

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- plan and conduct at least three sessions in two or more open space environments to minimise environmental impacts of sport, fitness or recreation activities
- for each of the sessions incorporate:
 - local government requirements
 - industry codes of practice
 - provision of advice to clients regarding the use of open spaces
 - management of client behaviour in open spaces
- provide feedback on the environmental impact of at least five sport, fitness or recreation activities conducted in open spaces.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- legislation, regulations and land management requirements and guidelines:
 - permits in national parks or on land under control of traditional owners
 - restrictions on camp site operations and use of open fires
- global environmental issues, in particular a layperson understanding of the science associated with:
 - climate change
 - energy
 - land management
 - waste and consumption
 - water
- environmental and social impacts of sport, fitness or recreation industry in relation to global environmental issues in particular sites and communities
- practical sustainability considerations for sport, fitness or recreation operations, incorporating those related to:
 - environmentally or culturally sensitive areas and associated minimal impact practices
 - handling and disposal of waste, including human waste

- industry codes of practice
- use of water sources
- minimal impact techniques and procedures in relation to:
 - activity-specific guidelines
 - energy use
 - group size
 - interaction with wildlife
 - local customs and courtesies
 - noise
 - setting of camps
 - souveniring
 - use of tracks
 - waste disposal
- biophysical and socio-cultural elements in an environment and the relationship between them
- information collection techniques for monitoring environmental and social impact, including what is observed and measured and how specific data is recorded.

Assessment Conditions

Skills must be demonstrated in:

- an outdoor space that could be used for sport, recreation or fitness work purposes.

Assessment must ensure access to:

- areas or locations containing natural systems or components of these systems
- resources and information relevant to the natural system
- relevant information impacting on conservation of natural systems
- relevant stakeholder and local government information regarding the use of open spaces
- industry code of ethical practice
- organisational documentation relevant to open space planning.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1ca50016-24d2-4161-a044-d3faa200268b>

SITGDE001 Interpret aspects of local Australian Indigenous culture

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to share information about a specific local Australian Indigenous culture. It is this localised focus that distinguishes this unit from SITGDE007 Research and share information on Australian Indigenous cultures.

The unit recognises that there is no single Australian Indigenous culture and emphasises the importance of local cultural knowledge, appropriate behaviour and local community consultation.

This unit applies to those people who are able to share local Australian Indigenous cultural knowledge with others. They may work at many different levels, as cultural knowledge has no direct relationship with organisational levels of responsibility.

The local Australian Indigenous cultural knowledge necessary to achieve competency in this unit may only be accessible to those individuals who identify as elders or who are authorised by local elders on behalf of their communities.

There are many different Indigenous language groups in Australia, therefore the focus of cultural interpretation will vary and should ultimately be decided in consultation with elders on behalf of the local community.

Tour guides, residing anywhere in Australia, are required to undertake training and assessment prescribed by Parks Australia to guide within Kakadu and Uluru–Kata Tjuta National Parks in the Northern Territory.

When working in Queensland, all guides, regardless of their place of residence, are subject to the Queensland Tourism Services Act 2003.

No other occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Guiding

Unit Sector

Tourism

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Consult with local Australian Indigenous community.
2. Share information about local Australian Indigenous culture.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1.Liaise with community members regarding tourism activities, and ways in which cultural information can be used to make these activities authentic to the local area.
- 1.2.Prepare for and conduct activities according to the needs and wishes of the local Australian Indigenous community.
- 1.3.Identify potential conflicts with the local Australian Indigenous community and seek solutions.
- 2.1.Share an appropriate level of information about aspects of Australian Indigenous culture with customers.
- 2.2.Advise customers about culturally appropriate behaviour.
- 2.3.Show respect for Australian Indigenous cultures and values through appropriate behaviour during activities.
- 2.4.Show customers traditional and contemporary practices when appropriate.
- 2.5.Use local language and share with customers when appropriate.
- 2.6.Invite customers to actively participate and share in the Australian Indigenous cultural experience when appropriate.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Writing skills to:	<ul style="list-style-type: none">• make notes about Australian Indigenous culture, to share with others.
Learning skills to:	<ul style="list-style-type: none">• develop own knowledge and understanding of Australian Indigenous cultures.
Teamwork skills to:	<ul style="list-style-type: none">• work effectively with the local Australian Indigenous community or with those who are authorised by elders on behalf of the community with regard to the preparation of appropriate information and activities.

Unit Mapping Information

SITTGDE101 Interpret aspects of local Australian Indigenous culture

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

Assessment Requirements for SITTGDE001 Interpret aspects of local Australian Indigenous culture

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- liaise with local Australian Indigenous community elders or persons approved by relevant local Indigenous community elders on at least three occasions and in a culturally appropriate manner to identify acceptable protocols for sharing aspects of local Indigenous culture with others
- share information on aspects of local Australian Indigenous culture with customers on at least three different occasions and at three different sites.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- culturally acceptable practices and protocols within a specific local Australian Indigenous community that address:
 - the type of information that can be shared
 - who can give information
 - who can receive the information
 - what activities are appropriate
 - who should be involved in activities
- aspects of a specific local Australian Indigenous culture as appropriate to specific community:
 - art
 - bush foods and medicine
 - dance
 - music
 - storytelling
 - tools and implements
- copyright and intellectual property issues associated with providing information about local Australian Indigenous cultures.

Assessment Conditions

Skills must be demonstrated in an Australian Indigenous tourism environment. This can be:

- an industry workplace where research is conducted and shared on Australian Indigenous cultures
- a simulated activity involving the researching and sharing of information on Australian Indigenous cultures.

Assessment must ensure access to:

- sites where Indigenous cultural experiences take place:
 - cultural centre
 - gallery
 - natural setting
- involvement of relevant local Indigenous community elders or persons approved by relevant local Indigenous community elders in the assessment process
- customers with whom the individual can interact; these can be:
 - customers in an industry workplace who are assisted by the individual during the assessment process; or
 - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in the tourism industry for at least three years where they have applied the skills and knowledge of this unit of competency.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

SITTGDE002 Work as a guide

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to work effectively as a guide. It covers key legal, ethical, safety, environmental and professional development issues that guides must consider in their day-to-day work.

This unit applies to guides who may work across multiple industry sectors as employees, volunteers, or independent contractors. They may operate within a single site, or in a particular city, region or tourist precinct, but often move across sites, cities and regions.

Guides apply discretion and judgement within established organisational procedures, and when guiding a tour or activity they take a lead role without supervision. Sometimes guides are the owner-operators of small tour operations.

Tour guides, residing anywhere in Australia, are required to undertake training and assessment prescribed by Parks Australia to guide within Kakadu and Uluru–Kata Tjuta National Parks in the Northern Territory.

When working in Queensland, all guides, regardless of their place of residence, are subject to the Queensland Tourism Services Act 2003.

No other occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Guiding

Unit Sector

Tourism

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Plan guiding activity.

2. Communicate with tourism industry operators.

3. Guide tours or activities.

4. Develop guiding skills and knowledge.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1. Identify key guide information sources and contacts.

1.2. Review required roles and responsibilities for prospective guiding activity.

1.3. Plan resource, labour and logistical aspects of the guiding activity.

1.4. Use industry knowledge and guide networks to enhance the quality of guiding services provided to customers.

2.1. Liaise with internal and external stakeholders to organise all aspects of the guiding activity.

2.2. Achieve mutual understanding and agree on details relevant to guiding activities.

2.3. Provide accurate information and explanations about customer requirements and special requests.

2.4. Identify nature and key facts of operational problems and provide appropriate solutions in consultation with tourism operator.

3.1. Conduct guiding activities according to legal, industry and safety requirements.

3.2. Actively participate in risk assessment as an integral part of work activities.

3.3. Take account of ethical considerations for particular contexts.

3.4. Support sustainable work practices.

4.1. Identify and use opportunities to update knowledge and skills required by guides.

4.2. Maintain knowledge of technologies used by guides.

4.3. Identify and access sources of guide support when required.

4.4. Share knowledge with colleagues to enhance quality of service provided to customers.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none">• read and interpret industry codes of practice and regulations.
Writing skills to:	<ul style="list-style-type: none">• complete risk assessment documentation.
Problem-solving skills to:	<ul style="list-style-type: none">• evaluate legal, ethical, safety and sustainability issues and requirements for guiding activities• make decisions on appropriate behaviours and actions.
Initiative and enterprise skills to:	<ul style="list-style-type: none">• make contingency plans when required, to deal with unexpected circumstances.
Teamwork skills to:	<ul style="list-style-type: none">• work effectively with industry operators.

Unit Mapping Information

SITTGDE301 Work as a guide

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

Assessment Requirements for SITTGDE002 Work as a guide

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- plan and conduct three guiding activities with different customers or groups which involve:
 - liaising with one or more tourism industry operators
 - identifying potential operational problems and appropriate solutions
 - incorporating client requirements and special requests
- undertake a full risk assessment for each of the above guiding activities that:
 - identifies inherent risks
 - identifies hazards
 - reports on hazards
- demonstrate how legal, ethical, safety and sustainability requirements have been met in the planning of each of the above guiding activities.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- interrelationship between tour operations and wholesaling sectors and the role of guiding in the tourism industry
- cultural considerations in dealing with industry colleagues, customers, suppliers and local communities
- roles and responsibilities for guides, and the specific roles of each of these guides:
 - adventure guides
 - city hosts
 - driver guides
 - meet and greet guides
 - site guides
 - tour guides
 - tour managers
- roles and services provided to guides by peak guiding bodies and industry associations to assist in developing guiding knowledge
- industry and legal compliance requirements that affect guiding operations:

- consumer protection laws
- occupational licensing and industry accreditation
- contents of various guiding codes of conduct or practice and the impacts of non-compliance
- public liability and the guide's duty of care
- environmental laws
- permit requirements for operating in protected areas
- Queensland Tourism Services Act 2003 requirements for guides when working in Queensland
- work health and safety
- different types of technologies and their uses:
 - presentation technologies
 - radio-frequency identification (RFID) codes for handheld devices
 - social networking
- opportunities to update own knowledge as a guide:
 - familiarisation tours
 - industry seminars
 - participation in industry accreditation schemes
 - participation or membership in professional guide associations
 - research
 - social networking
 - training courses
- tourism operators that work in collaboration with guides:
 - inbound tour operators
 - other guides
 - retail outlets:
 - factory outlets
 - opal or souvenir outlets
 - tax free stores
 - suppliers of any tourism product or service that is a component of the touring itinerary:
 - accommodation providers
 - airlines
 - attraction or theme parks
 - coach companies
 - cultural sites
 - event venues
 - food and beverage outlets
 - tour operators and cruise operators
- safety issues that affect guiding operations in particular contexts, particularly those related to customer safety in different environments

- ethical considerations for guides:
 - compliance with industry codes of conduct
 - cultural considerations
 - dealings with local communities
 - dealings with Indigenous communities
 - provision of services as promoted or confirmed
 - relationships with industry colleagues, customers and suppliers
 - avoiding unconscionable conduct
- sustainable work practices includes considerations for:
 - economic:
 - business profitability
 - environmental:
 - minimal impact practices
 - waste minimisation
 - social:
 - host community interactions
 - Australian Indigenous contexts.

Assessment Conditions

Skills must be demonstrated in an operational guiding environment. This can be:

- a real guiding activity
- a simulated industry environment or activity.

Assessment must ensure access to:

- environments in which guiding activities take place:
 - tourist attractions
 - visitor sites
 - on board various forms of transportation
- organisational specifications:
 - codes of conduct
 - procedures for liaising with tourism industry operators that are involved in the operation of guided activities
 - running sheets for tours and activities
 - incident report templates
 - passenger lists
 - risk assessment template
- microphone
- props and signage

- customer groups of a size and nature that reflect the commercial environment in which the guide operates
- tourism industry operators with whom the individual can interact; these can be:
 - those involved in organising a tour or activity who interact with the individual during the assessment process; or
 - individuals who participate in role plays or simulated activities set up for the purpose of assessment in an operational touring context
- participants undertaking a tour or activity for whom the individual can act as guide; participants can be:
 - those participating in a tour or activity who interact with the individual during the assessment process; or
 - individuals who participate in role plays or simulated activities set up for the purpose of assessment in an operational touring context.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

SITTGDE007 Research and share general information on Australian Indigenous cultures

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to research and share information about Australian Indigenous cultures in an appropriate way. It focuses on information that is widely available to the general community.

The unit recognises that there is no single Australian Indigenous culture and emphasises the importance of culturally appropriate behaviour and local community consultation.

This unit applies across many industry sectors. It is particularly relevant to cultural tourism operations and to individuals who work in customer service and guiding roles with differing levels of responsibility. Information could apply to Australian Indigenous communities and cultures across Australia, or to a specific Australian Indigenous community and culture.

Tour guides, residing anywhere in Australia, are required to undertake training and assessment prescribed by Parks Australia to guide within Kakadu and Uluru–Kata Tjuta National Parks in the Northern Territory.

When working in Queensland, all guides, regardless of their place of residence, are subject to the Queensland Tourism Services Act 2003.

No other occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Guiding

Unit Sector

Tourism

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Research general information on Australian Indigenous cultures.
2. Share general information on Australian Indigenous cultures.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Identify key information sources on Australian Indigenous cultures.
- 1.2. Select and use formal and informal research techniques to access current, accurate and relevant information about Australian Indigenous cultures.
- 1.3. Obtain information in a culturally appropriate way.
- 2.1. Identify and use Australian Indigenous interpreters where possible.
- 2.2. Provide guidance to customers on appropriate behaviour when interacting with Australian Indigenous people.
- 2.3. Share clear and accurate information on Australian Indigenous cultures to enhance cultural awareness, ensuring acknowledgment of the diversity of cultures.
- 2.4. Share information in a manner respectful of local community values and customs.
- 2.5. Answer questions according to community wishes about what information can be shared.
- 2.6. Respond to culturally inappropriate behaviour by customers to minimise the likelihood of causing offence.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS

DESCRIPTION

Writing skills to:

- make notes about Australian Indigenous culture to share with others.

Learning skills to:

- develop own knowledge and understanding of Australian Indigenous cultures.

- Teamwork skills to:
- work respectfully with Australian Indigenous interpreters and Australian Indigenous communities or with those who are authorised by elders on behalf of the community with regard to the preparation of appropriate information and activities.

Unit Mapping Information

SITTGDE306 Research and share general information on Australian Indigenous cultures

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

Assessment Requirements for SITTGDE007 Research and share general information on Australian Indigenous cultures

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- liaise with relevant Australian Indigenous community elders or persons approved by relevant Indigenous community elders in a culturally appropriate manner to identify acceptable protocols for sharing knowledge on local Indigenous culture with others
- using relevant sources of information listed in the knowledge evidence, undertake research on Australian Indigenous culture relevant to the regional context to develop current knowledge of:
 - art and music
 - bushcraft, bush food and bush medicine
 - contemporary Australian Indigenous life and culture
 - cultural centres, galleries and natural sites
 - dance
 - history, pre- and post-European contact
 - land ownership
 - tools and implements
 - traditional life and culture
- share information on aspects of local Australian Indigenous culture with customers on at least three different occasions and using at least three different locations.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- sources of information on Australian Indigenous cultures:
 - artworks
 - events
 - exhibitions
 - experiences (of self or others)
 - films
 - images
 - internet

- music
- performances
- Indigenous people
- traditional owners
- presentations
- professional associations
- printed texts
- protocols for researching and sharing information about Australian Indigenous cultures that address:
 - the type of information that can be shared
 - who can give information
 - who can receive the information
 - what activities are appropriate
 - who should be involved in activities
- fundamental Australian Indigenous intellectual property issues:
 - strong links between intellectual property and cultural heritage
 - issues associated with the reproduction and sale of Indigenous cultural works.

Assessment Conditions

Skills must be demonstrated in an Australian Indigenous tourism environment. This can be:

- an industry workplace where research is conducted and shared on Australian Indigenous cultures
- a simulated activity involving the researching and sharing of information on Australian Indigenous cultures.

Assessment must ensure access to:

- cultural sites, galleries or natural settings
- information sources verified or supported by Indigenous communities
- involvement of relevant local Indigenous community elders or persons approved by relevant local Indigenous community elders in the assessment process
- customers with whom the individual can interact; these can be:
 - customers in an industry workplace who are assisted by the individual during the assessment process; or
 - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

SITTGDE008 Prepare specialised interpretive content on flora, fauna and landscape

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to research and critically analyse specialised information on flora, fauna and landscape to develop interpretive themes and messages. It highlights the need for ongoing research to update and expand knowledge.

This unit applies across many industry sectors and has particular application to guides who work in national parks, or who conduct tours with a strong focus on the natural environment. In this context, guides work independently to research and prepare interpretive content.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Guiding

Unit Sector

Tourism

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Research specialised information on

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1. Identify key sources of specialised information

- | | |
|--|---|
| <p>flora, fauna and landscape.</p> | <p>about flora, fauna and landscape.</p> |
| <p>2. Prepare specialised information on flora, fauna and landscape.</p> | <p>1.2. Evaluate credibility and reliability of information sources.</p> <p>1.3. Use formal and informal research techniques to access current, accurate and relevant information.</p> <p>1.4. Determine potential subjects of customer interest and make focus of research activities.</p> <p>2.1. Analyse information and develop interpretive themes and messages to meet customer needs.</p> <p>2.2. Organise information to support ways in which it will be used and presented.</p> |
| <p>3. Update knowledge of specialised information on flora, fauna and landscape.</p> | <p>3.1. Identify and use opportunities to maintain currency of knowledge about specialised topics.</p> <p>3.2. Proactively seek opportunities to enhance and expand own knowledge base.</p> <p>3.3. Incorporate updated and expanded knowledge into work activities.</p> |

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"> • interpret potentially complex and detailed information on flora, fauna and landscape.
Writing skills to:	<ul style="list-style-type: none"> • make notes from research on flora, fauna and landscape.
Initiative and enterprise skills to:	<ul style="list-style-type: none"> • establish an interpretive framework • evaluate and adapt information for practical workplace purposes • create key messages, themes and storylines for customers.
Technology skills to:	<ul style="list-style-type: none"> • use the internet as a research tool.

Unit Mapping Information

SITTGDE307 Prepare specialised interpretive content on flora, fauna and landscape

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

Assessment Requirements for SITTGDE008 Prepare specialised interpretive content on flora, fauna and landscape

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- prepare three different presentations, with each presentation:
 - using at least four credible and reliable sources of information
 - demonstrating knowledge of flora, fauna and landscape as listed in the knowledge evidence
 - using appropriate ecological terminology and concepts
 - incorporating interpretive themes and messages
 - organising information in a logical and suitable manner for presentation.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- role of interpretation in creating a powerful customer experience
- sources of information on flora, fauna and landscape in the relevant geographic context
- landscapes of interest within a local region and their general characteristics
- key ecological terminology and concepts:
 - biodiversity and abundance
 - biotic and physical factors
 - carbon cycle
 - community relations
 - energy flow
 - food web
 - life cycles
 - nutrient cycle
 - populations
 - succession
 - water cycle
 - zonation
- interrelationships between parts of the ecosystem:

- developmental processes related to the formation of local landscapes:
 - geological formations and history
 - soil composition and its relation to plant and animal life and water catchment areas
- principles of Gondwana theory and the impact of Gondwana on plant and animal communities
- major landscape types and their characteristics:
 - alpine
 - coastal
 - desert
 - outback
 - temperate
 - tropical
- major species of flora and fauna within the local landscape:
 - characteristics
 - commonalities
 - interactions between species and the environment
 - nature of species and where it is found
 - nutrition and life cycles
 - roles of individual species
 - species harmful to humans
- identification techniques for flora and fauna
- environmental influences that affect landscape:
 - climate
 - earthquake
 - fire
 - flood
- human impact on landscape:
 - industrial activity
 - land clearing
 - mining
- management regimes and codes of practice for local landscape
- Australian Indigenous perspective on local landscape
- information sources frequently used by guides:
 - artworks
 - events
 - exhibitions
 - experiences and observations (of self or others)
 - films
 - geological societies, plant study groups or wildlife societies
 - images

- internet
- music
- local experts
- traditional owners
- performances
- presentations
- professional associations
- printed texts.

Assessment Conditions

Skills must be demonstrated in an operational guiding environment. This can be:

- an industry workplace where specialised interpretive content is developed for guiding activities
- a simulated activity involving the development of specialised interpretive content for guiding activities.

Assessment must ensure access to:

- current sources of information as listed in the knowledge evidence
- current interpretive resources
- equipment used to source, record and store information:
 - computer and software
 - internet
 - data storage equipment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

SITTGDE010 Prepare specialised interpretive content on cultural and heritage environments

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to research and critically analyse specialised information on cultural and heritage environments to develop interpretive themes and messages. It highlights the need for ongoing research to update and expand knowledge.

This unit applies across many industry sectors and has particular application to guides who work in cultural centres, museums, galleries or historic sites, or who conduct tours in regions with strong cultural and heritage significance. In this context, guides work independently to research and prepare interpretive content.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Guiding

Unit Sector

Tourism

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the

element.

- | | |
|---|--|
| 1. Research specialised information on cultural and heritage environments. | 1.1. Identify key sources of specialised information about cultural and heritage environments.
1.2. Evaluate credibility and reliability of information sources.
1.3. Use formal and informal research techniques to access current and relevant information.
1.4. Determine potential subjects of customer interest and make focus of research activities. |
| 2. Prepare specialised information on cultural and heritage environments. | 2.1. Analyse information and develop interpretive themes and messages to meet customer needs.
2.2. Organise information to support the ways in which it will be used and presented. |
| 3. Update knowledge of specialised information on cultural and heritage environments. | 3.1. Identify and use opportunities to maintain currency of knowledge about specialised topics.
3.2. Proactively seek opportunities to enhance and expand own knowledge base.
3.3. Incorporate updated and expanded knowledge into work activities. |

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"> • interpret potentially complex and detailed information on cultural and heritage environments.
Writing skills to:	<ul style="list-style-type: none"> • make notes on cultural and heritage environments.
Initiative and enterprise skills to:	<ul style="list-style-type: none"> • establish an interpretive framework • evaluate and adapt information for practical workplace purposes • create key messages, themes and storylines for customers.
Technology skills to:	<ul style="list-style-type: none"> • use the internet as a research tool.

Unit Mapping Information

SITTGDE309 Prepare specialised interpretive content on cultural and heritage environments

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

Assessment Requirements for SITTGDE010 Prepare specialised interpretive content on cultural and heritage environments

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- prepare three different presentations, with each presentation:
 - using at least four credible and reliable sources of information
 - demonstrating knowledge of cultural and heritage environments as listed in the knowledge evidence
 - using appropriate ecological terminology and concepts
 - incorporating interpretive themes and messages
 - organising information in a logical and suitable manner for presentation.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- the role of interpretation in creating a powerful customer experience
- sources of information on cultural and heritage environments
- cultural and heritage environments, natural and built:
 - art galleries
 - cultural centres
 - heritage trails
 - historic localities or regions
 - historic theme parks
 - Indigenous art or occupation sites
 - museums
 - prehistoric and fossil sites
- nature and significance of each cultural or heritage environment:
 - how the environment developed and evolved
 - historically and culturally significant features, details of any exhibits, displays or performances
 - individuals associated with the environment, their roles and impacts
 - role of the environment in the local community, both past and present

- relationship of the environment to past and current Australian culture and history
- information sources frequently used by guides:
 - artworks
 - events
 - exhibitions
 - experiences and observations (of self or others)
 - films
 - images
 - internet
 - music
 - objects
 - local experts
 - traditional owners
 - performances
 - presentations
 - professional associations
 - printed texts, books, journals, magazines, newspapers
 - technical information.

Assessment Conditions

Skills must be demonstrated in an operational guiding environment. This can be:

- an industry workplace where specialised interpretive content is developed for guiding activities
- a simulated activity involving the development of specialised interpretive content for guiding activities.

Assessment must ensure access to:

- current sources of information as listed in the knowledge evidence
- current interpretive resources
- equipment used to source, record and store information:
 - computer and software
 - internet
 - data storage equipment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

SITTPPD002 Develop interpretive activities

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to develop interpretive activities for different customer groups. It requires the ability to establish educational, interpretive and commercial objectives for an activity; develop operational aspects; and evaluate the success of the activity. The actual presentation of activities is covered in the unit SITTGDE005 Prepare and present tour commentaries or activities.

The unit applies to many industry sectors and has particular relevance in tourism, sport and recreation, and cultural contexts. Interpretive activities take place on historical, cultural, heritage or nature-based tours, in attractions and theme parks, in national parks or in locations such as museums, galleries, libraries, performing arts centres and zoos. Activities could be virtual.

Planning and developing interpretive activities may be for a series of activities in a venue or tour operation or for a one-off activity. It could be the responsibility of the person delivering the activity or be developed by senior operational or supervisory personnel. The planning role applies to those who work independently with limited guidance from others. This could include senior guides, activities coordinators, or owner-operators of small organisations.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Planning and Product Development

Unit Sector

Tourism

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1. Establish need for activities.

1.1. Identify need for interpretive activities, based on customer, organisation and community needs.

1.2. Establish educational, interpretive and commercial objectives in consultation with appropriate colleagues.

2. Create activities.

2.1. Identify and evaluate a range of potential information and resources, including other specialists as required.

2.2. Develop interpretive framework for activities.

2.3. Generate and select ideas for potential messages, themes and storylines.

2.4. Identify relationships between themes, storylines and the site.

2.5. Incorporate interpretive media that matches the site.

2.6. Conduct a risk assessment and incorporate controls into activity development.

2.7. Evaluate and integrate legal, ethical and sustainability considerations.

2.8. Develop resources to support activities.

2.9. Develop activity within budget to meet agreed objectives.

3. Evaluate activities.

3.1. Obtain formal and informal feedback from customers and colleagues during piloting or conduct of activities.

3.2. Modify activities according to feedback received.

3.3. Establish and implement ongoing review mechanisms to ensure continuous improvement of activities in line with its objectives.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS

DESCRIPTION

Reading skills to:

- evaluate wide ranging information and tease out creative themes and messages for activities
- analyse and interpret complex information and communicate it creatively to customers.

Oral communication

- consult with colleagues about development issues for interpretive

skills to: activities.

Numeracy skills to:

- calculate costs in order to work within established budgets.

Planning and organising skills to:

- coordinate creative and practical aspects of activities.

Technology skills to:

- use software to develop products that support the delivery of educational and commercial interpretive activities in both real and virtual contexts.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

Assessment Requirements for SITTPD002 Develop interpretive activities

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- plan and develop one single interpretive activity and one series comprising at least three interpretive activities combined into an overall program, for at least two of the following:
 - attractions
 - guided activities or walks
 - sporting activities
 - theme parks
 - virtual activities
- plan and develop the above interpretive activities using at least two of the following themes:
 - cultural
 - heritage
 - historical
 - nature
- ensure above interpretive activities include key messages that reflect subject matter knowledge and meet the needs of different customer groups and commercial and operational constraints
- identify review mechanisms for above interpretive activities.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- subject matter around which activities are developed
- influential principles and theories of interpretation
- physical and digital interpretive media
- resource considerations for the development of interpretive activities:
 - apps and other digital content
 - costumes
 - guest speakers
 - handouts

- information and communications technology
- natural resources
- props
- professional organisations
- special interest organisations
- specialists:
 - actors and performers
 - creative designers
 - cultural advisers
 - designers
 - environmental educators
 - heritage specialists
 - historians
 - interpretation consultants
 - marketers
 - subject matter experts
 - technical experts
- practical processes that support activity development:
 - budgeting
 - evaluation
 - needs analysis
 - resource development
 - scheduling
- creative communication techniques for interpretive activities:
 - games
 - illustrated talks
 - role-playing
 - sensory awareness exercises
 - storytelling
 - use of apps, podcasts, near response codes, quick response codes
- safety requirements specific to activities
- risk assessment processes:
 - determining overall risk level
 - determining exposure to the risk
 - estimating probability of negative impacts
 - identifying consequences that could result from the identified risk
- legal, ethical and sustainability considerations for activity development:
 - cultural appropriateness
 - duty of care
 - minimal impact

- minimising waste and conserving resources.

Assessment Conditions

Skills must be demonstrated in an operational tourism environment. This can be:

- an industry workplace
- a simulated industry environment set up for the purposes of assessment.

Assessment must ensure access to:

- a real or simulated environment for which interpretive activities can be planned and developed
- information sources on subject matter of interpretive activities, resources and other specialists
- current technology for use in activity development
- customers sufficient in number to reflect different customer, organisational or community needs and locations for interpretive activities; these can be:
 - customers in an industry workplace who are assisted by the individual during the assessment process; or
 - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

SITTPPD009 Develop environmentally sustainable tourism operations

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to plan strategically for environmentally sustainable operations. This is subject to a range of regulatory requirements that relate to environmental sustainability at land management agency and federal, state or territory, and local government level. It requires the ability to establish and operate a sustainable operation and to monitor its environmental impact.

The unit applies to those in the tourism industry with managerial responsibilities in strategic planning and product development. Planning may be for a whole region or local area or for a particular venue, organisation, event or product. The unit applies to any operation with a strong focus on environmental sustainability.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Planning and Product Development

Unit Sector

Tourism

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.	demonstrate achievement of the element.
1. Plan for environmental sustainability.	<p>1.1. Make environmental sustainability an integral part of product planning processes.</p> <p>1.2. Conduct evaluations prior to any decision to establish operation.</p> <p>1.3. Consult stakeholders and incorporate their views into planning process.</p> <p>1.4. Investigate methods of managing impact.</p> <p>1.5. Develop strategies that provide social and economic returns to communities.</p> <p>1.6. Proactively seek opportunities for new, innovative and more sustainable approaches to conducting operations.</p> <p>1.7. Develop strategies that balance environmental sustainability and economic viability.</p>
2. Implement environmentally sustainable operations.	<p>2.1. Establish and integrate best practice environmental standards to limit negative environmental impacts.</p> <p>2.2. Evaluate and use technologies for environmental best practice.</p> <p>2.3. Develop environmentally-friendly codes of practice for the operation and for customer use.</p> <p>2.4. Conduct operations according to environmentally sustainable practices, guidelines and legal requirements.</p> <p>2.5. Promote environmental awareness among stakeholders.</p>
3. Evaluate environmental impact.	<p>3.1. Monitor and assess environmental impacts as part of regular management reviews.</p> <p>3.2. Monitor compliance with codes of practice and legislative requirements.</p> <p>3.3. Initiate follow-up action based on assessment of environmental impact and compliance.</p>

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS

DESCRIPTION

Reading skills to:	<ul style="list-style-type: none"> interpret materials describing environmental regulatory requirements and codes of practice.
Writing skills to:	<ul style="list-style-type: none"> develop plans, systems and procedures for tourism operations.

- Oral communication skills to:
- consult with diverse stakeholders on potentially divisive and nuanced issues.
- Numeracy skills to:
- perform complex calculations to assess profitability considerations.
- Problem-solving skills to:
- respond to complex internal and external management challenges.
- Initiative and enterprise skills to:
- evaluate complex issues and information, and develop strategic responses.
- Planning and organising skills to:
- coordinate interrelated planning and operational processes.

Unit Mapping Information

SITTPPD602 Develop environmentally sustainable tourism operations

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

Assessment Requirements for SITTPPD009 Develop environmentally sustainable tourism operations

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- develop a plan for a tourism operation that supports environmental sustainability and provides evidence of:
 - analysis of key environmental issues
 - consultation with key stakeholders
 - evaluation of proposed operation
 - development of strategies and operational approaches that maximise positive impacts
 - integration of current legislation, regulations and industry codes
- implement the above plan, complying with environmentally sustainable practices, guidelines and legal requirements
- monitor and evaluate the environmental impact of the above tourism operation through:
 - community consultation and involvement
 - internal and external education programs
 - implementing sustainable operational initiatives:
 - regularly reviewing optimal group sizes
 - scheduling for optimal weather conditions and seasons
 - selecting most appropriate equipment and transport modes.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- current research trends in the area of ecologically sustainable operations
- current and emerging issues and trends relevant to above operation and the environment
- global environmental issues, in particular a layperson's understanding of the science associated with:
 - climate change
 - energy
 - land management
 - waste and consumption
 - water

- relevance of particular environmental issues to the area or region of work and the specific features and vulnerabilities of the local environment
- methods of environmental evaluation:
 - environmental impact study (EIS)
 - evaluation of organisational capacity to comply with:
 - environmental and community protection laws
 - industry and ecotourism codes of practice
 - social sustainability
 - site studies
- consultation and communication mechanisms used by organisations in the product development process:
 - features
 - nature
 - objectives and outcomes
 - scope
 - time parameters
- strategic frameworks and operational systems and procedures that support environmentally sustainable operations:
 - customers
 - equipment and supplies
 - staff
- ways of balancing ecological sustainability and the economic viability of an operation
- potential negative environmental impacts:
 - disturbance of flora and fauna
 - introduction of exotic and feral species
 - physical damage
 - pollution
 - visual impacts
 - waste issues
- laws, regulations and land management requirements and guidelines:
 - need for permits in national parks or on land under control of traditional owners
 - restrictions on operations in relevant areas.

Assessment Conditions

Skills must be demonstrated in a destination, location, organisation or event for which an environmentally sustainable operation can be established. This can be:

- an industry workplace
- a simulated industry environment set up for the purposes of assessment.

Assessment must ensure access to:

- current information about environmental practices:
 - legislation
 - guidelines
 - industry codes of practice
- current information and communications technology to support the research and planning process
- stakeholders with whom consultations can take place, these can be:
 - consumer representatives
 - host community
 - investors
 - government authorities
 - land management agencies
 - suppliers of environmentally-friendly products; or
 - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

SITXCCS002 Provide visitor information

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to access general information on facilities, products and services available in the local area and to provide this to visitors.

The unit applies to frontline service personnel working in a range of tourism, travel, hospitality, entertainment and cultural contexts. Information is often provided face-to-face, but may be by telephone or other remote mechanisms.

It applies to frontline service personnel who routinely respond to visitor requests for general local area information. They may be working independently or with guidance from others in restaurants, hotels, wineries, attractions, entertainment venues, tour operations, visitor information centres and at tour desks.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Client and Customer Service

Unit Sector

Cross-Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | |
|--|---|
| 1. Access and update visitor information. | 1.1. Identify and access sources of visitor information.
1.2. Obtain general information on local facilities, products and services to meet different visitor needs.
1.3. Share information with colleagues to support the efficiency and quality of service.
1.4. Identify and use <i>opportunities to update and maintain local area knowledge</i> . |
| 2. Provide information to visitors. | 2.1. Identify specific information and assistance needs of visitors, including those with special needs.
2.2. Provide appropriate scope and depth of information to meet visitor needs.
2.3. Identify and use opportunities to promote internal products and services. |
| 3. Seek feedback on information provision. | 3.1. Proactively seek visitor feedback to ensure required information has been provided.
3.2. Follow procedures for any formal visitor evaluation.
3.3. Provide information on visitor feedback to relevant colleagues. |

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"> • interpret sometimes detailed product and local area information • research, sort and use relevant information.
Writing skills to:	<ul style="list-style-type: none"> • record simple notes and basic information on local facilities, products and services for visitors.
Oral communication skills to:	<ul style="list-style-type: none"> • listen and respond to range of visitor requests, asking questions to clarify and confirm.
Learning skills to:	<ul style="list-style-type: none"> • review own knowledge of information required to assist visitors and participate in activities that continuously update it.

Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the

candidate, accessibility of the item, and local industry and regional contexts) are included.

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Opportunities to update and maintain local area knowledge must include at least four of the following:

- informal discussions with colleagues and visitors
- internal newsletters and external promotional material
- local information centre
- participating in local familiarisation tours
- local media: newspaper, radio and television
- personal observation or exploration
- principal or supplier of the product or service
- staff noticeboards
- team meetings.

Unit Mapping Information

SITXCCS201 Provide visitor information

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

Assessment Requirements for SITXCCS002 Provide visitor information

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- provide current, accurate and relevant information about local area features to three different visitors on three different occasions
- provide above information and assistance in a culturally appropriate manner and according to organisational service standards
- extend personal knowledge of relevant facilities, products and services
- seek formal and informal feedback from visitors on above services.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- sources of information on the available local area facilities, products and services:
 - brochures
 - library
 - local council
 - local people and local identities with specialised knowledge
 - local visitor guide booklets and maps
 - online reservation systems
 - organisation information
 - organisation-designed information systems
 - principal supplier of a product
 - product library
 - room directories
 - social media websites
 - state or territory government tourism authority information systems
 - timetables
- information on the local area features:
 - accommodation options
 - dining options

- entertainment venues
- local attractions
- local personal services facilities
- local shopping facilities
- local transport options
- organisation-specific information
- road conditions
- sporting facilities
- tours, local outings and trips
- travelling routes
- weather conditions
- organisational service procedures and standards:
 - designated response times for acknowledging customers and their enquiry
 - personal presentation and hygiene standards
- awareness of customs and practices of various social and cultural groups of visitors to assist with meeting visitor needs and expectations in regards to:
 - modes of greeting, farewelling and conversation
 - body language and body gestures
 - formality of language
 - clothing
- methods of collecting feedback:
 - formal:
 - surveys
 - interviews
 - structured questioning
 - informal:
 - observation
 - casual discussion
- organisational service procedures and standards.

Assessment Conditions

Skills must be demonstrated in an operational customer service environment in a service based industry such as tourism, travel, hospitality or events where information is sourced and provided to visitors. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- sources of information on the local area facilities, services and general products, and their availability
- organisational specifications for customer service standards
- visitor surveys and feedback forms
- visitors from different cultural backgrounds with whom the individual can interact; these can be:
 - visitors to an industry workplace during the assessment process; or
 - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

SITXCOM004 Address protocol requirements

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to source and access information on protocol requirements to fulfil any sales or operational need. It requires the ability to identify appropriate information sources, access and interpret specific details of protocol requirements, and coordinate the use of protocol.

The unit applies to many tourism, travel, hospitality and event sectors and is particularly relevant to events, function coordination, tour operations and tour guiding.

Protocol affects a broad range of business and government activity and the breadth and depth of protocol knowledge required will vary. This unit does not require in-depth knowledge of protocol requirements, but rather focuses on the ability to collect and interpret protocol information.

This unit applies to a range of people working independently or with limited guidance, including tour and event coordinators and managers, tour guides, and front of house or duty managers.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Communication and Teamwork

Unit Sector

Cross-Sector

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Source information on appropriate protocol requirements. 2. Coordinate the use of protocol. 3. Update knowledge of protocol. | <ol style="list-style-type: none"> 1.1. Assess the need for protocol to be followed for the particular situation. 1.2. Identify relevant sources of protocol information. 1.3. Liaise with customers to determine appropriate protocol. 1.4. Interpret relevant protocol information to inform work practice. 2.1. Identify specific work activities requiring a particular protocol to be observed. 2.2. Provide protocol briefings to staff and suppliers. 2.3. Coordinate the use of correct protocol for the delivery of product or service. 3.1. Identify and use opportunities to update protocol knowledge. 3.2. Share updated knowledge with customers and colleagues as required. |
|---|---|

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS

DESCRIPTION

- | | |
|-------------------------------|--|
| Reading skills to: | <ul style="list-style-type: none"> • interpret unfamiliar and complex protocol information. |
| Writing skills to: | <ul style="list-style-type: none"> • compose correspondence reflecting correct protocols, when preparing correspondence to dignitaries and officials, invitations, and team briefing papers. |
| Oral communication skills to: | <ul style="list-style-type: none"> • liaise with customers, clients, their agents and personal assistants to confirm protocol requirements • address dignitaries and officials using appropriate language. |
| Self-management skills to: | <ul style="list-style-type: none"> • take responsibility for meeting protocol requirements. |

Unit Mapping Information

SITXCOM301 Address protocol requirements

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

Assessment Requirements for SITXCOM004 Address protocol requirements

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- source accurate information on protocol requirements for at least two of the following:
 - organising an event or function, such as a meeting, reception or tour
 - organising accommodation
 - issuing marketing materials reflecting correct titles of dignitaries
 - meeting the requirements of dignitaries and officials
 - meeting the requirements of entertainers and masters of ceremony
- integrate protocol requirements into oral and written material for each of the above
- update and integrate knowledge of protocol when organising each of the above.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- main types of civic functions held in Australia
- importance and role of protocol in different business situations
- key sources of information on protocol for:
 - Australian honours system:
 - order of precedence
 - ranks and forms of address
 - wearing of honours and medals
 - involvement of Indigenous Australians and other cultural groups in business activities
 - correct use of national and state symbols:
 - flags
 - anthems
 - military salutes
 - forms of address for different dignitaries and officials, both for written correspondence and in oral communication
- sources of protocol information:
 - Aboriginal Land Councils

- Australia Day Council
- customers, clients, their agents and personal assistants
- federal, state or territory, and local government protocol departments
- internet
- libraries
- Office of the United Nations
- specific work activities impacted by protocol requirements:
 - addressing and introducing dignitaries and officials
 - correspondence to dignitaries and officials
 - issuing invitations
 - liaison with dignitaries and officials
 - preparing:
 - briefing papers
 - marketing materials
 - running sheets
- protocols for the following different situations:
 - invitations to dignitaries and officials
 - arrival procedures, for heads of state or government officials
 - introduction protocols and order of speakers
 - order of precedence for official guests
 - seating arrangements
 - dress styles
- opportunities to update protocol knowledge:
 - informal networking with colleagues
 - internet research
 - reading relevant journals.

Assessment Conditions

Skills must be demonstrated in an operational tourism, travel, hospitality or events environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- current protocol information relevant to organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

SRXGOV001B Participate as a member of an effective Board of an organisation

Modification History

Not applicable.

Unit Descriptor

This unit has been developed for the Community Recreation, Fitness, Outdoor Recreation and Sport Industry Training Packages. This unit covers the skills required to be an active participant in the effective governance activities of an organisation. It does not cover any of the management skills required of staff of an organisation. This unit applies equally to both volunteer and paid directors of organisations.

This unit has been developed for the Community Recreation, Fitness, Outdoor Recreation and Sport Industry Training Packages. This unit covers the skills required to be an active participant in the effective governance activities of an organisation. It does not cover any of the management skills required of staff of an organisation. This unit applies equally to both volunteer and paid directors of organisations.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Identify the core business and establish the strategic direction of the organisation	1.1 Identify the core business of the organisation
	1.2 Identify, explain and document the relationships between the organisation and other stakeholders
	1.3 Interact with key stakeholders to inform them of achievements and to ensure their input into the determination of strategic goals and directions
	1.4 Document the organisation's strategic direction and priorities
	1.5 Establish performance targets, that form the basis for evaluation of performance
2 Follow legal requirements when carrying out Board duties	2.1 Identify and refer to the relevant provisions of the legal framework under which the organisation was established
	2.2 Monitor relevant aspects of the appropriate federal, state and local legislation and by-laws for organisation compliance
3 Work within the structure of the organisation	3.1 Differentiate and document the member, governance and management issues of the organisation in the organisation's governance policy guidelines
	3.2 Identify, document and refer to the relationships between governance issues and management issues
	3.3 Identify and document the role of the Board in the organisation's governance policy guidelines
	3.4 Identify and document the role of the individual Directors in the organisation's governance policy guidelines
	3.5 Identify and document the role of the Chairperson in the organisation's governance policy guidelines
	3.6 Identify and document the role of the Secretary in the organisation's governance policy guidelines

- 3.7 Document delegations of the Board's authority
- 3.8 Undertake and evaluate duties outlined in job descriptions of Board members regularly as a whole **Board assessment** and an **individual Director assessment**
- 4 **Monitor trends and changes in the industry**
 - 4.1 Ensure the Board is aware of **emerging issues** in the industry that are likely to have an impact on the organisation's business
 - 4.2 Evaluate the identified **emerging issues** within a risk management and due diligence framework for their impact on the organisation
 - 4.3 Ensure those **emerging issues** requiring attention by the organisation are dealt with by the Board in an appropriate manner
 - 4.4 Demonstrate how the Board regularly reviews its policies and procedures to take account of the **emerging issues**
- 5 **Monitor the organisation's operations**
 - 5.1 Ensure preparation for meetings is adequate and timely
 - 5.2 Record meeting attendance and encourage effective participation by all Board members
 - 5.3 Utilise information provided in analysing the efficiency and effectiveness of the organisation in meeting its stated objectives and performance targets
 - 5.4 Review policies, procedures, operations and **workplace responsibilities** of the organisation and adapt accordingly
- 6 **Supervise the senior management of the organisation**
 - 6.1 Receive information and advice regularly from the senior management of the organisation to form the basis of informed decision-making
 - 6.2 Provide instructions to the senior management of the organisation to implement specific policy directions as required
 - 6.3 Seek feedback from senior management of the organisation in relation to the implementation of the specific policy directions

- 6.4 Assess the performance of the Chief Executive Officer (CEO) regularly in accordance with the **legal framework** under which they are engaged

Required Skills and Knowledge

Not applicable.

Evidence Guide

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statements

Critical aspects of evidence to be considered

Assessment must confirm sufficient knowledge of being an effective paid or unpaid member of the Board of a sport or recreation organisation in the work environment

Assessment of performance should be over a period of time covering all categories of the Range Statements that are applicable in the learner's environment

In particular, assessment must confirm the ability to

identify the core business and establish the strategic direction of the organisation

follow legal requirements when carrying out Board duties

work within the structure of the organisation

monitor trends and changes in the industry

monitor the organisation's operations

supervise the senior management of the organisation

Interdependent assessment of units

This unit must be assessed after attainment of competency in the following unit(s)

Nil

This unit must be assessed in conjunction with the following unit(s)

SRXGOV002B Undertake the role of an individual Director of an organisation

For the purpose of integrated assessment, this unit may be assessed in conjunction with the following unit(s)

Nil

Required knowledge and skills

Required knowledge

Knowledge of natural justice and fair process as it relates to the evaluation and assessment of the effectiveness and efficiency of a Board and individual Directors

Knowledge of the business and operations of the organisation as it relates to participating in the formulation of strategic directions

Knowledge of the legal framework under which the organisation operates and the Memorandum and/or Articles of Association of the organisation

Knowledge of roles and responsibilities of particular functions on the Board such as Chairperson, Secretary and Director

Knowledge of the role policies and procedures play in the effective running of an organisation

Knowledge of the separation of the governance (Board) and management (Chief Executive Officer) functions of the organisation and how the management issues are effectively functions of the Board that are delegated to the Chief Executive Officer (CEO)

Knowledge of performance measurement systems as they relate to the measurement of the efficiency and effectiveness of the organisation in meeting its stated performance targets

Knowledge of effective human resource management practices as they relate to the delegation, monitoring and evaluation of the Chief Executive Officer (CEO) and senior management

Knowledge of issues to do with Occupational Health and Safety (OH&S) as they relate to the employment of staff

Required skills

Literacy and numeracy skills as they relate to the reading, comprehension, evaluation and analysis of documentation that relates to the organisation's strategic direction, governance policy guidelines, undertaking of the function of Director and the monitoring of trends in industry

Research skills as they relate to the monitoring of trends in industry

Verbal communication skills as they relate to the presentation of cogent arguments within the Board processes

Written communication skills as they relate to the presentation of papers at a Board meeting

Negotiation skills as they relate to active participation in Board discussions and decision - making

Consultation skills as they relate to the meaningful engagement of relevant stakeholders in the organisation's operations

Policy development skills as they relate to the drafting of, consultation on and endorsement of policies and procedures for the effective operation of the organisation

Resource implications

Physical resources - assessment of this competency requires access to either real or simulated organisations and their respective Board processes

Human resources - assessment of this unit of competency will require human resources

consistent with those outlined in the Assessment Guidelines. That is, assessors (or persons within the assessment team) must be competent in this unit but preferably be competent in the unit at the level above be current in their knowledge and understanding of the industry through provision of evidence of professional activity in the relevant area have attained the mandatory competency requirements for assessors under the Australian Quality Training Framework (AQTF) as specified in Standard 7.3 of the **Standards for Registered Training Organisations**

Consistency in performance

Due to issues such as performing various duties as a member of a Board of an organisation, this unit of competency must be assessed over period of time in order to ensure consistency of performance over the Range Statements and contexts applicable to participating as a member of an effective Board of an organisation

Context for assessment

This unit of competency must be assessed in the context of participating as a member of an effective Board of a sport or recreation organisation

Assessment of this unit of competence will usually include observation of processes and procedures, oral and/or written questioning on required knowledge and skills and consideration of required attitudes

Where performance is not directly observed and/or is required to be demonstrated over a "period of time" and/or in a "number of locations", any evidence should be authenticated by colleagues, supervisors, clients or other appropriate persons

KEY COMPET ENCIES

Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	2

These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

The three levels of performance (1, 2 and 3) denote the level of competency required to perform the task:

Use routine approaches

Select from routine approaches

Establish new approaches

Collecting, analysing

**and
organising
informatio**

n -
Collecting
information
on the core
business of
the
organisatio
n

**Communic
ating ideas
and
informatio**

n -
Reporting
to the
Board on a
task that
was
allocated

**Planning
and
organising
activities -**

Planning
and
organising
regular
Board
meetings

**Working
with teams
and others**

- Working
as a
member of
a Board of
an
organisatio
n

**Using
mathemati
cal ideas
and**

techniques

- Analysing financial documents for the organisation

Solving problems -

Identifying the need to hold an extraordinary meeting

Using technology

- Taking part in a teleconference

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies.

Range Statement

Range Statements

The Range Statements provide advice to interpret the scope and context of this unit of competence, allowing for differences between enterprises and workplaces. The Range Statements relate to the unit as a whole and helps facilitate holistic assessment. In addition, the following variables may be present for this particular unit of competency

RANGE STATEMENT

Board assessment

CATEGORIES

[all categories]

the assessment of the Board as a whole could

be undertaken by four key issues

chat with the Chairperson

yes/no questionnaire

grading questionnaire

written questionnaire

the introduction of an effective process of Board assessment will involve

implementation over time

gaining commitment

careful preparation

deciding the issues to be covered by the Board assessment

defining measures of performance: organisation and Board

communicating performance

implementing changes

reviewing the process

Chief Executive Officer assessment

[all categories]

the Chief Executive Officer (CEO) assessment should be

undertaken by the Board, as the Chief Executive Officer (CEO) is responsible to the Board as a whole, not just the Chairperson

part of a policy framework

based on objective performance criteria

reviewed as part of an organisation and Board performance review

linked to a remuneration policy which reflects objective performance

the aim of the performance evaluation is to align the long - term interests of the Chief Executive Officer (CEO) with the long - term interests of the organisation. This would require a three stage process of

the Board setting goals for/with the Chief Executive Officer

monitoring the performance of the organisation against the goals

responding to the difference between expected and actual outcomes

performance measures should be

valid

verifiable

controllable

global

communicable

Core business of the organisation

[all categories]

that business that is consistent with the intent and purpose for which the organisation was established

that business that is consistent with the Memorandum and Articles of Association

Emerging issues

[all categories]

the Corporate Law Economic Reform Bill (1998)

technology

information

Individual Director assessment

[all categories]

the assessment of Directors who are currently on the Board can be undertaken by various means

chat with the Chairperson

chat with the Governance Committee

Director self-assessment

aggregated results to give Board profiles

qualitative peer assessment

the assessment of a Director prior to appointment should consider the following issues

the profile should be related to the goals of the organisation and the organisation and Board performance criteria

an external search process should be used to complement the probable likely suspects known to the Board

the appointment term should be considered relevant information should be discussed prior to the appointment

current Directors should meet the final candidate to ensure they are comfortable that the new Director will contribute the skills knowledge and experience sought in a team-like manner

a thorough induction process should be undertaken

Legal framework

[all categories]

the legal context within which the organisation operates

association - Associations law

corporation - Corporation law

Legislation

[all categories]

specific laws

Corporation law

the Corporations law, the complementary State legislation and the Ordinances of the relevant Territories

the Company Law Review Act (1998)

the Corporate Law Economic Reform Bill (1998)

Associations law

Trade Practices law

competition

consumer protection

Contract law

Environmental law

Taxation law

Regulatory compliance

laws relating to people

Industrial Relations/Workplace Relations Act

Occupational Health and Safety (OH&S) Acts

Employment

Equal Opportunity and Anti - Discrimination

Child Protection

Volunteer Workers Insurance

Public Liability

Workers compensation

Business specific laws

laws relating to business

Income Tax Act

Payroll Acts

Stamp duty Act

Liquor Licensing Acts

Landlord and Tenant

Goods and Services Tax (GST) Act

Copyright Act

Trade Marks Act

Business specific laws and Acts

Organisation's governance policy guidelines

[all categories]

would include policies and processes in the areas of

role of board

board structure

role of individual directors

role of chairperson

role of company secretary
role of chief executive officer
board meetings
board meeting agenda
board papers
board minutes
the board calendar
committees
delegation of authority
monitoring
strategy formulation
service/advice
contacts
chief executive officer evaluation
director protection
board evaluation
director development
director selection and induction

Stakeholders

[all categories]
shareholders
government Ministers
government departments
Departments of Consumer Affairs or Fair
Trading government industry regulators
Australian Competition and Consumer
Commission
Australian Securities and Investments
Commission
Departments of Consumer Affairs or Fair
Trading

Non-government industry regulators
Australian Stock Exchange

employees
suppliers
customers
media
unions
the community
other organisations

Workplace responsibilities

[all categories]
employment of staff
Occupational Health and Safety (OH&S)

Unit Sector(s)

Not applicable.

SRXGOV004B Work effectively with the Board of an organisation

Modification History

Not applicable.

Unit Descriptor

This unit has been developed for the Community Recreation, Fitness, Outdoor Recreation and Sport Industry Training Packages.

This unit covers the skills required for senior staff of an organisation to work effectively with the Board or management committee of a recreation organisation or facility.

This unit has been developed for the Community Recreation, Fitness, Outdoor Recreation and Sport Industry Training Packages.

This unit covers the skills required for senior staff of an organisation to work effectively with the Board or management committee of a recreation organisation or facility.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Identify the roles of governance and management	1.1 Differentiate and document the member, governance and management issues of the organisation in the organisation's governance policy guidelines
	1.2 Identify, document and refer to the relationships between governance issues and management issues
2 Facilitate the development of an effective Board	2.1 Provide information to enable the Board to analyse the efficiency and effectiveness of the organisation in meeting its stated objectives and performance targets
	2.2 Ensure new Directors understand the way that the Board operates and the organisation's governance policy guidelines
	2.3 Highlight continuing professional development opportunities to the attention of all Directors
	2.4 Monitor relevant aspects of the appropriate federal, state and local legislation and by-laws for organisation compliance and provide advice to ensure Directors follow legal requirements when carrying out Board duties
3 Provide detailed information for the Board to deal with the right matters	3.1 Ensure the Board is aware of emerging issues in the industry that are likely to have an impact on the organisation's business
	3.2 Evaluate the identified emerging issues within a risk management and due diligence framework for their impact on the organisation and provide this information to the Board
	3.3 Differentiate governance and management issues of the organisation to ensure the Board deals with the right matters
	3.4 Collate a well structured Board paper, containing all necessary information items and including a recommendation from management, for all agenda items

- 3.5 Ensure **Board** members receive the papers in sufficient time to study them before the meeting
- 3.6 Establish processes to source appropriate internal and external professional advice for Directors to inform their decision-making (where required)
- 3.7 Establish processes to deal with extraordinary matters that arise outside scheduled meetings
- 4 **Ensure that Board decisions are implemented properly**
 - 4.1 Ensure complete and accurate minutes are recorded and reported to the **Board**
 - 4.2 Identify and implement actions that flow from the decisions clearly
 - 4.3 Implement the appropriate policies and procedures to support the Board's decisions within agreed timeframes
 - 4.4 Advise the **Board** promptly of **issues** affecting the implementation of **Board** decisions
- 5 **Ensure regular communication with the Board**
 - 5.1 Provide information and advice regularly to the **Board** to foster informed decision-making
 - 5.2 Brief the Chairperson in great detail on all substantive issues at all times
 - 5.3 Seek clear instructions from the **Board** in order to implement specific policy directions (as required)
 - 5.4 Seek feedback from the **Board** in relation to the performance of staff regarding implementation of the specific policy directions

Required Skills and Knowledge

Not applicable.

Evidence Guide

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of

competence and should be read in conjunction with the Range Statements

Critical aspects of evidence to be considered

Assessment must confirm sufficient knowledge of working effectively with the Board of a recreation organisation or facility in the work environment

Assessment of performance should be over a period of time covering all categories of the Range Statements that are applicable in the learner's environment

In particular, assessment must confirm the ability to

differentiate between management and governance issues

ensure the Board follows the organisation's governance policy guidelines

facilitate the establishment of an effective Board team

arrange for the Board to deal with the right matters

provide sufficient documentation for the Board to reach informed decisions

ensure that the decisions are implemented properly

communicate regularly with the Board and ensure the Chairperson is well briefed on current issues affecting the organisation

Interdependent assessment of units

This unit must be assessed after attainment of competency in the following unit(s)

Nil

This unit must be assessed in conjunction with the following unit(s)

Nil

For the purpose of integrated assessment, this unit may be assessed in conjunction with the following unit(s)

Nil

Required knowledge and skills

Required knowledge

Knowledge of the business and operations of the organisation as it relates to the formulation of strategic directions

Knowledge of the legal framework under which the organisation operates and the Memorandum and/or Articles of Association of the organisation

Knowledge of roles and responsibilities of particular functions on the Board such as Chairperson, Secretary and Director

Knowledge of the role policies and procedures play in the effective running of an organisation

Knowledge of the separation of the governance (Board) and management (Chief Executive Officer) functions of the organisation and how the management issues are effectively functions of the Board that are delegated to the Chief Executive Officer (CEO)

Knowledge of human resource management practices as they relate to the development of effective working relationships between paid staff and volunteer Boards

Required skills

Literacy and numeracy skills as they relate to the reading, comprehension, evaluation and analysis of documentation that relates to the organisation's strategic direction, governance policy guidelines and the monitoring of trends in industry

Research skills as they relate to the monitoring of trends in industry

Verbal communication skills as they relate to the presentation of information to the Board

Written communication skills as they relate to the presentation of papers at a Board meeting

Consultation skills as they relate to the

meaningful engagement of relevant Board members in the organisation's operations

Policy development skills as they relate to the drafting of, consultation on and endorsement of policies and procedures for the effective operation of the organisation

Facilitation and project management skills as they relate to the implementation of Board decisions

Leadership skills as they relate to demonstration of appropriate individual standards of performance, influencing others, making decisions, facilitating group decision - making and the utilisation of appropriate leadership styles

Resource implications

Physical resources - assessment of this competency requires access to

either real or simulated organisations and their respective Board processes

Human resources - assessment of this unit of competency will require human resources consistent with those outlined in the Assessment Guidelines. That is, assessors (or persons within the assessment team) must

be competent in this unit but preferably be competent in the unit at the level above

be current in their knowledge and understanding of the industry through provision of evidence of professional activity in the relevant area

have attained the mandatory competency requirements for assessors under the Australian Quality Training Framework (AQTF) as specified in Standard 7.3 of the **Standards for Registered Training Organisations**

Consistency in performance

Due to issues such as the varied issues that are required to be discussed by a Board, this unit of competency must be assessed over period of time in order to ensure consistency of performance over the Range Statements and contexts applicable to working

effectively with the Board or management committee of a sport or recreation organisation

Context for assessment

This unit of competency must be assessed in the context of working effectively with the Board or management committee of a sport or recreation organisation

Assessment of this unit of competence will usually include observation of processes and procedures, oral and/or written questioning on required knowledge and skills and consideration of required attitudes

Where performance is not directly observed and/or is required to be demonstrated over a "period of time" and/or in a "number of locations", any evidence should be authenticated by colleagues, supervisors, clients or other appropriate persons

**KEY
COMPET
ENCIES**

Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	3	3	3	3	3	2

These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that

underpin
effective
workplace
practices.

The three
levels of
performanc
e (1, 2 and
3) denote
the level of
competency
required to
perform the
task:

Use routine
approaches

Select from
routine
approaches

Establish
new
approaches

**Collecting,
analysing
and
organising
informatio
n -**

Collecting
information
on the core
business of
the
organisatio
n

**Communic
ating ideas
and
informatio
n -**

Reporting
to the
Board on a
task that
was

allocated

Planning and organising activities -

Planning and organising regular Board meetings

Working with teams and others

- Working with members of a Board of an organisation

Using mathematical ideas and techniques

- Analysing financial documents for the organisation

Solving problems -

Identifying the need to hold an extraordinary meeting

Using technology

- Taking part in a teleconference

Please refer to the

Assessment
Guidelines
for advice
on how to
use the Key
Competenci
es.

Range Statement

Range Statements

The Range Statements provide advice to interpret the scope and context of this unit of competence, allowing for differences between enterprises and workplaces. The Range Statements relate to the unit as a whole and helps facilitate holistic assessment. In addition, the following variables may be present for this particular unit of competency

RANGE STATEMENT

CATEGORIES

Board

[all categories]

refers to Boards or committees of management responsible for the governance of a recreation organisation or facility as distinct from the management operations

Board members may be paid Directors or volunteers

Emerging issues

[all categories]

may include but not limited to

the Corporate Law Economic Reform Bill (1998)

technology

information

Legislation

[all categories]

specific laws

Corporation law

the Corporations law, the complimentary State legislation and the Ordinances of the relevant Territories

the Company Law Review Act (1998)
the Corporate Law Economic Reform Bill
(1998)

Associations law
Trade Practices law
Competition
consumer protection
Contract law
Environmental law
Taxation law
Regulatory compliance

laws relating to people
Industrial Relations/Workplace Relations
Act
Occupational Health and Safety (OH&S)
Acts
Employment
Equal Opportunity and Anti - Discrimination
Child Protection
Volunteer Workers Insurance
Public Liability
Workers compensation
business specific laws

laws relating to business
Income Tax Act
Payroll Acts
Stamp duty Act
Liquor Licensing Acts
Landlord and Tenant
Goods and Services Tax (GST) Act
Copyright Act
Trade Marks Act

Organisation's governance policy guidelines

business specific laws and acts

[all categories]

would include policies and processes in the areas of

- role of Board
- Board structure
- role of individual Directors
- role of Chairperson
- role of Company Secretary
- role of Chief Executive Officer (CEO)
- Board meetings
- Board meeting agenda
- Board papers
- Board minutes
- the Board calendar
- committees
- delegation of authority
- monitoring
- strategy formulation
- service/advice
- contacts
- Chief Executive Officer (CEO) evaluation
- Director protection
- Board evaluation
- Director development
- Director selection and induction

Unit Sector(s)

Not applicable.

SRXGRO002A Deal with conflict

Modification History

Not applicable.

Unit Descriptor

This unit has been developed for the Community Recreation, Fitness, Outdoor Recreation and Sport Industry Training Packages.

This unit covers the knowledge and skills required to deal effectively with conflict in the workplace.

This unit has been developed for the Community Recreation, Fitness, Outdoor Recreation and Sport Industry Training Packages.

This unit covers the knowledge and skills required to deal effectively with conflict in the workplace.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Identify conflict situations	1.1 Identify (quickly) signs and possible causes of conflict 1.2 Determine accurately the stage of the conflict, with respect to progression and possible escalation 1.3 Take swift and tactful action to prevent escalation 1.4 Identify (quickly) situations where personal safety of clients or staff may be threatened and organise appropriate assistance (if required) 1.5 Identify factors within the individual or workplace environment which relate to the developing conflict
2 Implement conflict resolution strategies	2.1 Take responsibility for resolving the conflict within scope of individual responsibility 2.2 Clarify factors and issues relevant to the conflict 2.3 Demonstrate correct use of conflict resolution techniques to manage the conflict after consideration of the particular situation 2.4 Identify options for resolution of the conflict which allow for constructive responses to be negotiated and enable established work relationships to continue 2.5 Encourage, treat with respect, and accept (where appropriate) all points of view during negotiations and discussions
3 Use effective interpersonal skills	3.1 Demonstrate use of effective verbal and non verbal communication during negotiations (including body language, questioning, language style, active listening and reflection) 3.2 Provide assertive feedback, and receive feedback non-defensively during negotiations

Required Skills and Knowledge

Not applicable.

Evidence Guide

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statements

Critical aspects of evidence to be considered

Assessment must confirm sufficient knowledge of typical symptoms and causes of conflict in the work environment and conflict resolution techniques

Assessment of performance should be over the resolution of a minimum of three (3) different conflict situations, covering the prescribed number of categories from the Range Statements

Assessment must confirm the ability to apply this knowledge and appropriate techniques to identify sources of conflict in the workplace resolve a range of different conflict situations, using different options for resolution

use suitable communication skills to facilitate effective discussion between all parties and achieve resolution

Interdependent assessment of units

This unit must be assessed after attainment of competency in the following unit(s)

Nil

This unit must be assessed in conjunction with the following unit(s)

Nil

For the purpose of integrated assessment, this unit may be assessed in conjunction with the following unit(s)

Nil

Required knowledge and skills

Required knowledge

Signs and stages of conflict in the workplace

Possible causes/sources of conflict
(ideational, status and power, goal conflict)

Functions of conflict (functional and
dysfunctional)

Options for constructive responses to typical
conflict situations

Required skills

Interpersonal skills

Participation in small informal work groups

Problem solving

Ability to gather, record, and convey
information

Resource implications

Physical resources - assessment of this unit
of competency requires access to

real or simulated work group situations

access to information relevant to the
workplace

Human resources - assessment of this unit of
competency will require human resources
consistent with those outlined in the
Assessment Guidelines. That is, assessors (or
persons within the assessment team) must

be competent in this unit but preferably be
competent in the unit at the level above

be current in their knowledge and
understanding of the industry through
provision of evidence of professional activity
in the relevant area

have attained the mandatory competency
requirements for assessors under the
Australian Quality Training Framework
(AQTF) as specified in Standard 7.3 of the
**Standards for Registered Training
Organisations**

Consistency in performance

Due to issues such as differences in conflict
situations, this unit of competency must be

assessed over the resolution of a minimum of three (3) different conflict situations, to ensure consistency of performance over the Range Statements and contexts applicable to conflict arising in workplaces

Context for assessment

This unit of competency must be assessed in the context of responding to a conflict issue arising during a sport or recreation activity for a group of clients. For valid and reliable assessment the clients should be real, i.e., not peers, and the sport or recreation activity should be similar to those that occur in the learners work environment. The environment should be safe with the hazards, circumstances and equipment likely to be encountered in a real workplace

Assessment of this unit of competency will usually include observation of processes and procedures, oral and/or written questioning on required knowledge and skills and consideration of required attitudes

Where performance is not directly observed and/or is required to be demonstrated over a "period of time" and/or in a "number of locations", any evidence should be authenticated by colleagues, supervisors, clients or other appropriate persons

**KEY
COMPETENCIES**

Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	2	-	2	-	3	-

These levels do not relate to the Australian

Qualifications

Framework

. They relate to the seven areas of generic competency that underpin effective workplace practices.

The three levels of performance (1, 2 and 3) denote the level of competency required to perform the task:

Use routine approaches

Select from routine approaches

Establish new approaches

Collecting, analysing and organising information -

Collecting information objectively from all stakeholders involved in a conflict situation

Communicate

**ating ideas
and
informatio**

n - Liaising
with all
stakeholder
s and
presenting
solution-foc
used ideas

**Planning
and
organising
activities -**

Not
applicable

**Working
with teams
and others**

-

Collaborati
vely
working
with people
and
negotiating
and
consulting
for a
resolution

**Using
mathemati
cal ideas
and
techniques**

- Not
applicable

**Solving
problems -**

Resolving
conflict
and/or
preventing
conflict
from
arising in a

workplace
situation

Using technology

- Not
applicable

Please refer
to the
Assessment
Guidelines
for advice
on how to
use the Key
Competenci
es.

Range Statement

Range Statements

The Range Statements provide advice to interpret the scope and context of this unit of competence, allowing for differences between enterprises and workplaces. The Range Statements relate to the unit as a whole and helps facilitate holistic assessment. In addition, the following variables may be present for this particular unit of competency

RANGE STATEMENT

Conflict resolution techniques

CATEGORIES

[all categories]
approaches to conflict resolution include
withdrawal
smoothing
compromise
forcing
confrontation
problem solving
compromise
majority vote
arbitration

Conflict situations

[all categories]

situations may include

client complaints

conflicts among work colleagues

conflict between clients/participants

Factors related to conflict

[all categories]

factors contributing to conflict may include

opposing attitudes, values, beliefs

individual versus group goals

workload

stress

limited resources

Interpersonal skills

[all categories]

communication

verbal

non-verbal

questioning

listening

paraphrasing

negotiating

feedback

Options for resolution

[all categories]

win - win

win - lose

lose - lose

Workplace environment

[one category]

sectors of the sport and recreation industry

fitness

sport

community recreation

outdoor recreation

Unit Sector(s)

Not applicable.

TAEASS401 Plan assessment activities and processes

Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

Application

This unit describes the skills and knowledge required to plan the assessment process, including recognition of prior learning (RPL), in a competency-based assessment system.

It applies to individuals with assessment planning responsibilities.

In planning activities and processes, individuals are required to identify the components of assessment tools, analyse and interpret assessment tools, and develop assessment instruments (also known as assessment tasks) and assessment plans.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Assessment

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine the assessment approach	1.1 Identify the candidate and confirm the purposes and context of the assessment with relevant people according to legal, organisational and ethical requirements 1.2 Identify and access applicable industry or workplace standards for the assessment, and any specific assessment requirements
2. Prepare the assessment	2.1 Analyse units of competency and assessment requirements to

ELEMENT	PERFORMANCE CRITERIA
plan	<p>identify evidence needed to demonstrate competence, according to the rules of evidence</p> <p>2.2 Select assessment methods and instruments to support the collection of defined evidence, taking into account the context in which the assessment will take place</p> <p>2.3 Develop the assessment plan and gain approval from relevant stakeholders</p>
3. Identify modification and contextualisation requirements	<p>3.1 Use information from the candidate and, where relevant, the candidate's workplace to identify contextualisation needs</p> <p>3.2 Check advice provided by the training package or course developer relevant to identified contextualisation needs</p> <p>3.3 Analyse existing assessment tools and record amendments required to address identified contextualisation needs</p> <p>3.4 Determine opportunities for integrated assessment activities and record any changes required to assessment tools</p>
4. Develop the assessment instruments	<p>4.1 Analyse available assessment instruments for their suitability for use, and identify any required modifications</p> <p>4.2 Develop assessment instruments to meet the required standard and specific workplace/candidate needs</p> <p>4.3 Map assessment instruments against the unit or course requirements</p> <p>4.4 Write clear instructions for the candidate and assessor regarding the use of assessment instruments</p> <p>4.5 Check and confirm that draft assessment instruments meet required standards and specific workplace/candidate needs and record outcomes of checks</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

FOUNDATION SKILLS

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance	Description
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	Criteria	
Reading	1.1, 1.2, 2.1, 3.1, 3.2, 3.3, 3.4, 4.2, 4.3	<ul style="list-style-type: none"> Identifies and confirms legal, organisational and ethical requirements Selects and analyses assessment-related documents
Writing	1.1, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3, 4.4, 4.5	<ul style="list-style-type: none"> Documents the assessment plan Develops assessment instruments, including instructions and mapping Records outcomes of draft assessment checks
Oral Communication	1.1, 2.3, 3.1	<ul style="list-style-type: none"> Participates in exchanges about assessment processes and the trialling of instruments appropriate to the audience
Navigate the world of work	1.1	<ul style="list-style-type: none"> Identifies, confirms and takes responsibility for adherence to policies, procedures, legal, and ethical requirements
Interact with others	1.1, 2.3, 3.1	<ul style="list-style-type: none"> Collaborates with others as part of routine activities, and to confirm understanding
Get the work done	1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.3, 3.4, 4.2, 4.3, 4.5	<ul style="list-style-type: none"> Plans a range of routine processes and related tasks with logically sequenced steps, according to defined standards or parameters Uses formal decision-making processes, identifying information and evaluating several choices against a limited set of criteria Evaluates effectiveness of planning and design decisions in terms of how well they meet requirements

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
TAEASS401 Plan assessment activities and processes	TAEASS401B Plan assessment activities and processes	Updated to meet Standards for Training Packages. Addition of new element.	No equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

Assessment Requirements for TAEASS401 Plan assessment activities and processes

Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

Performance Evidence

The candidate must demonstrate the ability to complete tasks outlined in the elements and performance criteria of this unit, including:

- planning and organising the assessment process on a minimum of five separate occasions
- planning and organising two Recognition of Prior Learning (RPL) assessments (which may be two of the five assessment processes above.)

The evidence requirements for each occasion must include:

- a documented assessment plan
- a different endorsed or accredited unit of competency (or clusters of units of competency) for each of the five occasions
- contextualisation of the unit(s) of competency and the selected assessment tools, where required
- incorporation of reasonable adjustment strategies
- development of suitable assessment instruments for each of the five occasions

following organisational arrangements.

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge to effectively complete the task outlined in the elements and performance criteria of this unit. This includes knowledge of:

- obligations of an assessor under applicable legislation and/or standards
- the major features of a unit of competency, and how they are to be addressed in assessment activities and processes
- interpreting competency standards as the minimum standard for assessment
- guidelines for contextualising units of competency

- different purposes of assessment and different assessment contexts, including RPL
- the purpose and features of evidence, and different types of evidence, used in competency-based assessments, including RPL
- the principles of assessment, and how they guide the assessment process
- the rules of evidence and how they guide the assessment process
- different assessment methods, including their suitability for collecting various types of evidence
- the components of assessment tools

different types of assessment instruments and their purpose and relevance for specific evidence-gathering opportunities.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and which are typical of those experienced in the training and assessment environment. This includes access to the units of competency used in assessment planning activities.

Assessors must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Assessors of this unit must hold the *TAE50116 Diploma of Vocational Education and Training* or the *TAE50111 Diploma of Vocational Education and Training* or be able to demonstrate equivalence of competencies.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

TAEASS402 Assess competence

Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

Application

This unit describes the skills and knowledge required to implement an assessment plan, and gather quality evidence to assess the competence of a candidate using compliant assessment tools.

It applies to teachers, trainers and assessors in enterprises and registered training organisations (RTOs) and those providing assessment advisory services.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Assessment

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for the assessment	1.1 Interpret assessment planning documentation and applicable organisational, legal and ethical requirements for conducting the assessment and confirm with the relevant people 1.2 Access and interpret units of competency that are to be used as benchmarks for assessment, and the nominated assessment tools, to confirm the requirements for the evidence to be collected 1.3 Determine opportunities for integrated assessment activities

ELEMENT	PERFORMANCE CRITERIA
	<p>and document any changes to the assessment instruments, where required</p> <p>1.4 Determine opportunities for evidence-gathering in actual or simulated activities, through consultation with the candidate and relevant personnel</p> <p>1.5 Conduct a candidate briefing and explain, discuss and agree on the details of the planned assessment</p> <p>1.6 Arrange identified material and physical resource requirements</p> <p>1.7 Identify any specialist support requirements for the assessment, and organise if necessary</p>
2. Gather quality evidence	<p>2.1 Use agreed assessment methods and tools to gather, organise and document evidence in a format suitable for determining competence</p> <p>2.2 Apply the principles of assessment and rules of evidence in gathering quality evidence</p>
3. Support the candidate	<p>3.1 Discuss and guide candidates in gathering their own evidence to support the recognition of prior learning (RPL)</p> <p>3.2 Use appropriate communication and interpersonal skills to develop a professional relationship with the candidate that reflects sensitivity to individual differences and enables two-way feedback</p> <p>3.3 Make decisions on reasonable adjustments with the candidate, based on the candidate's needs and characteristics</p> <p>3.4 Access specialist support, if required, in accordance with the assessment plan</p> <p>3.5 Address any workplace health and safety (WHS) risk to a person or equipment immediately</p>
4. Make the assessment decision	<p>4.1 Assess the collected evidence, and to evaluate whether it reflects the evidence required to demonstrate competence</p> <p>4.2 Use judgement to infer whether competence has been demonstrated, based on the available evidence</p> <p>4.3 Make the assessment decision in line with agreed assessment procedures and according to the agreed assessment plan</p> <p>4.4 Provide clear and constructive feedback to the candidate regarding the assessment decision, and clearly document follow-up, if required</p>
5. Record and report the assessment decision	<p>5.1 Record assessment outcomes promptly and accurately</p> <p>5.2 Complete and submit required assessment documentation,</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>according to assessment procedures and confidentiality conventions</p> <p>5.3 Inform other relevant parties of the assessment decision, according to confidentiality conventions</p>
6. Review the assessment process	<p>6.1 Review the assessment process in consultation with candidates and other relevant people to improve future practice</p> <p>6.2 Document and record the review according to relevant assessment system policies and procedures</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 2.1, 4.1	<ul style="list-style-type: none"> Accesses and interprets procedural and compliance documentation relevant to the assessment process Examines and evaluates assessment evidence
Writing	1.1, 1.3, 1.5, 2.1, 3.1, 5.1, 5.2, 5.3, 6.2	<ul style="list-style-type: none"> Completes workplace documentation accurately using appropriate language and following organisational requirements
Oral Communication	1.1, 1.4, 1.5, 3.1, 3.4, 4.4, 5.3, 6.1	<ul style="list-style-type: none"> Communicates information and assessment process requirements clearly, using techniques appropriate to the audience and environment Interacts appropriately with candidates to build rapport and understanding, and obtain specific information to support the assessment process
Navigate the world of work	1.1, 3.5, 5.3	<ul style="list-style-type: none"> Identifies, confirms and takes responsibility for adherence to legal and ethical requirements Recognises, and follows, explicit and implicit protocols and meets expectations associated with own role
Interact with others	1.1, 1.4, 1.5, 3.1, 3.2, 3.4, 5.3, 6.1	<ul style="list-style-type: none"> Adjusts personal communication style in recognition of the values and experiences of others to build rapport Cooperates and collaborates with others and contributes to activities requiring joint responsibility

		and accountability
Get the work done	1.1, 1.2, 1.3, 1.4, 1.6, 1.7, 2.1, 2.2, 3.3, 3.4, 4.1, 4.2, 4.3, 6.1, 6.2	<ul style="list-style-type: none"> • Uses systematic, analytical processes in complex, non-routine situations, gathering information, and identifying and evaluating options against agreed criteria • Organises work according to specific requirements taking some responsibility for decisions regarding the format of information • With guidance, reviews the effectiveness of solutions in relation to the set goals

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
TAEASS402 Assess competence	TAEASS402B Assess competence	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

Assessment Requirements for TAEASS402 Assess competence

Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit, including:

- assessment of at least five candidates within the vocational education and training (VET) context against at least one endorsed or accredited unit of competency according to the organisation's assessment processes and practices.
- using recognition of prior learning (RPL) processes in the assessment of at least one candidate (which may be one of the five candidates above)
- making reasonable adjustments in the assessment of at least one candidate.

The assessments must be undertaken under the supervision of a qualified assessor and cover an entire unit of competency for each candidate, including:

- the application of different assessment methods and instruments involving a range of activities and events
- using two-way communication and feedback with the candidate
- exercising judgement in making the assessment decision
- recording and reporting assessment outcomes in accordance with the assessment system and organisational, legal and ethical requirements

reviewing the assessment process.

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge to effectively complete the task outlined in the elements and performance criteria of this unit. This includes knowledge of:

- competency-based assessment, including:
 - VET as a competency-based system
 - how competency based assessment differs from other types of assessment
 - competency standards as the basis of qualifications

- structure and application of competency standards
- the principles of assessment and how they are applied
- the distinction between assessment tools and assessment instruments
- the rules of evidence and how they are applied
- the range of assessment purposes and assessment contexts, including RPL
- different assessment methods, including suitability for gathering various types of evidence, suitability for the content of units, and resource requirements and associated costs
- reasonable adjustments and when they are applicable
- types and forms of evidence, including assessment instruments that are relevant to gathering different types of evidence used in competency-based assessment, including RPL
- the training and assessment strategies, including policies and procedures established by the industry, organisation or training authority
- RPL policies and procedures established by the organisation
- cultural sensitivity and equity considerations in assessment activities
- current legislative requirements relevant to the assessor and the assessment process
- workplace health and safety (WHS) responsibilities associated with assessing competence, including:
 - requirements for reporting hazards and incidents
 - emergency procedures
 - procedures for the use of relevant personal protective equipment
 - the safe use and maintenance of relevant equipment
 - sources of WHS information.

Assessment Conditions

Gather evidence to demonstrate consistent performance in a real assessment environment. The assessment environment must include access to assessment tools and recording materials.

Assessors must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Assessors of this unit must hold the *TAE50116 Diploma of Vocational Education and Training* or the *TAE50111 Diploma of Vocational Education and Training* or be able to demonstrate equivalence of competencies.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

TAEASS403 Participate in assessment validation

Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

Application

This unit describes the skills and knowledge required to participate in an assessment validation process.

It applies to assessors and workplace supervisors with assessment validation responsibilities participating in, but not necessarily leading, the process.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Assessment

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for validation	1.1 Discuss and confirm the purpose, context and scope of the validation process within relevant assessment system policies and procedures 1.2 Arrange materials for validation activities 1.3 Check all documents used in the validation process for accuracy and version control 1.4 Analyse relevant units of competency and agree on the evidence needed to demonstrate competence

ELEMENT	PERFORMANCE CRITERIA
2. Participate in the validation of assessment tools	<p>2.1 Demonstrate active and appropriate participation in validation sessions and activities using agreed communication methods and modes</p> <p>2.2 Apply principles of assessment and rules of evidence during validation sessions and activities</p> <p>2.3 Check that context and conditions of assessment include clear instructions for assessor and candidate and relate directly to the assessment conditions of the relevant unit</p> <p>2.4 Check that tasks to be administered to the candidate include clear and concise instructions and an outline of evidence requirements</p> <p>2.5 Check that assessment decision-making rules and benchmarks, are clear and enable consistent outcomes</p> <p>2.6 Check that recording mechanisms are clear and allow for sufficient information to be recorded</p> <p>2.7 Review and use assessment maps to assist in determining validity of assessment instruments</p>
3. Contribute to validation outcomes	<p>3.1 Discuss validation findings to support improvements in the quality of assessment in a collective environment</p> <p>3.2 Discuss, agree and record recommendations to improve assessment practice</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.3, 1.4, 2.3, 2.4, 2.5, 2.6, 2.7	<ul style="list-style-type: none"> Analyses and interprets relevant policies and procedures, benchmarks and validation materials
Writing	1.1, 3.2	<ul style="list-style-type: none"> Records key information from the validation process accurately to meet requirements
Oral Communication	1.1, 1.4, 2.1, 2.2, 3.1, 3.2	<ul style="list-style-type: none"> Communicates with others to confirm approaches, exchange ideas and information, articulate opinions, and reach agreement with others, using suitable tone, style and language
Navigate the world of work	1.1	<ul style="list-style-type: none"> Identifies, confirms and takes responsibility for adherence to policies and procedures
Interact with others	1.1, 2.1, 2.2, 3.1, 3.2	<ul style="list-style-type: none"> Collaborates with others and contributes to activities requiring joint responsibility and accountability
Get the work done	1.1, 1.2, 1.3, 1.4, 2.3, 2.4, 2.5, 2.6, 2.7, 3.2	<ul style="list-style-type: none"> Organises and prioritises work commitments with a sense of what is achievable within the timeframe Uses analytical processes in non-routine situations gathering information, and identifying and evaluating options against agreed criteria

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
TAEASS403 Participate in assessment validation	TAEASS403B Participate in assessment validation	Updated to meet Standards for Training Packages. Revised performance criteria.	No equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

Assessment Requirements for TAEASS403 Participate in assessment validation

Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit, including:

- actively participating in a minimum of three validation sessions that address the critical aspects of validation
- clearly identifying the purpose for each validation, and the legal and ethical responsibilities of assessors
- collating and presenting documentation for each validation in a logical manner
- communicating and liaising with relevant people
- providing feedback and interpreting documentation in validation sessions
- recording their contribution to validation findings.
-

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge to effectively complete the task outlined in the elements and performance criteria of this unit. This includes knowledge of:

- how to determine the evidence needed to demonstrate competence in a competency-based environment
- the reasons for carrying out validation and different approaches to validation that may be appropriate before, during and after an assessment
- the components of assessment tools
- critical aspects of validation, including validation of assessment processes, methods and products
- how principles of assessment are addressed in validation
- how rules of evidence are addressed in validation
- work health and safety legislation, codes of practice, standards and guidelines that impact on assessment

- obligations of an assessor under applicable legislation and/or standards, particularly in relation to validation activities.
-

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Conditions must be typical of those experienced in the training and assessment environment, and include access to:

- the texts and tasks usually found in the workplace
- units of competency and other materials used in validation sessions.

Assessors must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Assessors of this unit must hold the *TAE50116 Diploma of Vocational Education and Training* or the *TAE50111 Diploma of Vocational Education and Training* or be able to demonstrate equivalence of competencies.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

TAEDEL301 Provide work skill instruction

Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

Application

This unit describes the skills and knowledge required to conduct individual and group instruction, demonstrate work skills and assess the success of training and one's own training performance, using existing learning resources in a safe and comfortable learning environment.

It emphasises the training as being driven by the work process and context, and applies to a person working under supervision as a work skill instructor in a wide range of settings not restricted to training organisations,

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Delivery and facilitation

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Organise instruction and demonstration	1.1 Gather information about learner characteristics and learning needs 1.2 Confirm a safe learning environment 1.3 Gather and check instruction, demonstration objectives, and seek assistance if required 1.4 Access and review relevant learning resources and learning

ELEMENT	PERFORMANCE CRITERIA
	<p>materials for suitability and relevance, and seek assistance to interpret the contextual application</p> <p>1.5 Organise access to necessary equipment or physical resources required for instruction and demonstration</p> <p>1.6 Notify learners of details regarding the implementation of the learning program and/or delivery plan</p>
2. Conduct instruction and demonstration	<p>2.1 Use interpersonal skills with learners to establish a safe and comfortable learning environment</p> <p>2.2 Follow the learning program and/or delivery plan to cover all learning objectives</p> <p>2.3 Brief learners on any workplace health and safety (WHS) procedures and requirements prior to, and during, training</p> <p>2.4 Use delivery techniques to structure, pace and enhance learning</p> <p>2.5 Apply coaching techniques to assist learning</p> <p>2.6 Use communication skills to provide information, instruct learners and demonstrate relevant work skills</p> <p>2.7 Provide opportunities for practice during instruction and through work activities</p> <p>2.8 Provide and discuss feedback on learner performance to support learning</p>
3. Check training performance	<p>3.1 Use measures to ensure learners are acquiring, and can use, new technical and generic skills and knowledge</p> <p>3.2 Monitor learner progress and outcomes in consultation with the learner</p> <p>3.3 Review relationship between the trainer/coach and the learner, and adjust to suit learner needs</p>
4. Review personal training performance	<p>4.1 Reflect upon personal performance in providing instruction and demonstration, and document strategies for improvement</p> <p>4.2 Maintain, store and secure learner records, according to organisational and legal requirements</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Learning	4.1	<ul style="list-style-type: none"> Reflects on practice to improve
Reading	1.1, 1.3, 1.4, 2.2	<ul style="list-style-type: none"> Sources and interprets processes and procedures, learning resources and information relevant to providing a work instruction and delivery
Writing	1.4, 1.6, 2.3, 2.6, 2.8, 3.2, 4.1, 4.2	<ul style="list-style-type: none"> Accurately maintains learner records and documentation appropriate to the learning context and audience
Oral Communication	1.1, 1.6, 2.3, 2.4, 2.6	<ul style="list-style-type: none"> Uses appropriate communication strategies to engage, build rapport, provide instruction, monitor progress and provide feedback to individuals or groups
Interact with others	1.2, 1.3, 2.1, 2.5, 2.8, 3.2	<ul style="list-style-type: none"> Recognises the importance of consultation and negotiation while collaborating to confirm strategy and achieve required outcomes Asks questions in order to clarify understanding, and to provide and seek feedback Builds rapport to establish effective working relationships and to achieve effective outcomes
Get the work done	1.1-1.6, 2.1-2.8, 3.1-3.3, 4.1, 4.2	<ul style="list-style-type: none"> Organises and completes work according to defined requirements, taking responsibility for some decisions and sequencing tasks to achieve efficient outcomes Identifies and responds to potential risks, problems and opportunities for improvement and considers options for different approaches

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
TAEDEL301 Provide work skill instruction	TAEDEL301A Provide work skill instruction	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

Assessment Requirements for TAEDEL301 Provide work skill instruction

Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit, including:

- carrying out a minimum of three training sessions, involving demonstrating and instructing particular work skills for at least two different individuals or small groups, with each session addressing:
 - different learning objectives
 - a range of delivery techniques and effective communication skills appropriate to the audience.

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge to effectively complete the task outlined in the elements and performance criteria of this unit. This includes knowledge of:

- learner characteristics and needs
- the content and requirements of the relevant learning program, and/or the delivery plan
- the sources and availability of relevant learning resources and learning materials
- the content of relevant learning resources and learning materials
- training techniques that enhance learning, and when to use them
- introductory knowledge of learning principles and learning styles
- key workplace health and safety (WHS) issues in the learning environment, including:
 - roles and responsibilities of key personnel
 - responsibilities of learners
 - relevant policies and procedures, including hazard identification, risk assessment, reporting requirements, safe use of equipment and emergency procedures
 - risk controls for the specific learning environment.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Conditions must be typical of those experienced in the training and assessment environment and include access to any necessary workplace documents.

Assessors must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

TAEDEL404 Mentor in the workplace

Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

Application

This unit describes the skills and knowledge required to establish and develop a professional mentoring relationship with an individual in a workplace.

It applies to workplace supervisors or other work colleagues who work under limited supervision and who have responsibility for mentoring one or more individuals in the workplace. This may include, but is not limited to, those who mentor an apprentice or trainee employed by, or undertaking a work placement within, an organisation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Delivery and facilitation

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop a mentoring plan	1.1 Identify scope and boundaries of the mentoring relationship according to organisational procedures 1.2 Document mentoring plan in accordance with organisational requirements 1.3 Establish ground rules and negotiate realistic expectations 1.4 Establish and maintain confidentiality of the relationship in

ELEMENT	PERFORMANCE CRITERIA
	accordance with legislation, policy and procedures
2. Facilitate mentoring relationship	<p>2.1 Develop learner's confidence, self-esteem, respect and trust in the mentoring relationship</p> <p>2.2 Share personal experiences and knowledge with the person being mentored according to agreed objectives</p> <p>2.3 Support the person being mentored to develop and use skills in problem solving and decision making</p> <p>2.4 Use personal and professional networks to assist the person being mentored</p> <p>2.5 Provide information, and guidance to enhance engagement in the workplace</p> <p>2.6 Use techniques for resolving differences without damaging the relationship, and obtain assistance according to organisational policy and procedures</p>
3. Monitor mentoring relationship	<p>3.1 Provide planning assistance and guidance as requested by the person being mentored in a form and style to suit their requirements</p> <p>3.2 Provide feedback to the person being mentored on progress towards achieving the expectations and goals of the mentoring process</p> <p>3.3 Recognise and discuss changes in the mentoring relationship with appropriate stakeholders</p> <p>3.4 Negotiate and manage closure of the mentoring arrangement once objectives have been met</p>
4. Evaluate effectiveness of mentoring	<p>4.1 Establish and discuss benefits gained from the mentoring process</p> <p>4.2 Reflect on and articulate the personal benefits gained from providing mentoring</p> <p>4.3 Identify and report the outcomes of the mentoring arrangement and the benefits to the organisation according to organisational policy and procedures to improve the mentoring system or program</p>

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.4	<ul style="list-style-type: none"> Sources and interprets texts relevant to mentoring context, including organisational policies and learner information
Writing	1.1, 1.3, 2.5, 3.1, 3.2, 4.3	<ul style="list-style-type: none"> Develops content and documents information relevant to mentoring plan
Oral Communication	2.4, 3.3, 4.1, 4.2, 4.3	<ul style="list-style-type: none"> Uses appropriate communication techniques to build rapport, trust, engagement and provide guidance and feedback
Navigate the world of work	1.1, 1.4, 2.6, 4.3	<ul style="list-style-type: none"> Follows legislative requirements, organisational protocols, policies and procedures in workplace mentoring
Interact with others	1.2, 2.1-2.3, 2.5, 2.6, 3.1, 3.2, 3.4	<ul style="list-style-type: none"> Builds rapport using collaboration with others to achieve joint outcomes and effective interaction Provides mentoring and role modelling to achieve agreed outcomes Cooperates and consults with others to clarify understanding and seek feedback
Get the work done	1.1-1.4, 2.1-2.6, 3.1-3.4, 4.1-4.3	<ul style="list-style-type: none"> Plans, organises and completes work according to defined requirements taking responsibility for decisions and sequencing tasks to achieve efficient outcomes Identifies and responds to problems, considering options for different approaches

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
TA EDEL404 Mentor in the workplace	TA EDEL404 A Mentor in the workplace	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

Assessment Requirements for TAEDEL404 Mentor in the workplace

Modification History

Release	Comments
Release1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, including:

- preparing a mentoring plan between the mentor and mentee that sets out clear objectives for a mentoring relationship that will last at least one year
- facilitating at least three mentoring sessions
- documenting information on sessions, including comments and notes from both mentor and mentee.
-

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge to effectively complete the task outlined in the elements and performance criteria of this unit. This includes knowledge of:

- relevant policy, legislation, codes of practice and national standards likely to impact on the provision of workplace mentoring, including training contracts and responsibilities of employer, registered training organisation (RTO) and funding body where they exist
- mentoring methodologies and strategies
- learning theories in relation to mentoring
- strategies for working with a mentee including encouraging self reflection, confidence and the building of rapport
- acceptable behaviour in the mentoring relationship
- equal employment opportunity, equity and diversity principles
- how a mentor can support the mentee's employer to meet its WHS obligations for the mentee.
-

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Conditions must be typical of those experienced in the training and assessment environment and include access to:

- documentation of any existing training plan or contract if applicable to the mentoring relationship.

Assessors must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

TLID1001 Shift materials safely using manual handling methods

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to shift loads safely using manual handling methods. Work must be carried out in compliance with the relevant work health and safety (WHS)/occupational health and safety (OHS) regulations concerning the manual handling and movement of loads.

It includes assessing the risks associated with relocating the load, planning the relocation process and carrying out the relocation in accordance with the plan.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

D – Load Handling

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Assess risks associated with

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Products, goods or materials to be relocated are identified and assessed to determine appropriate relocation method

relocating load

- 1.2 Storage locations are determined and potential routes to be followed are identified
- 1.3 Effect of load relocation on original load base is predicted
- 1.4 Points of balance are estimated
- 1.5 Required clearances are compared to available space and adjustments are made to moving loads to reflect required clearance
- 1.6 Effects of moving contents, which may be loose, liquid, dangerous or hazardous, are considered
- 1.7 Risks in potential routes are considered
- 1.8 Risks to self are identified arising from the required lifting, load carrying, set down or movement of the goods
- 1.9 Manual handling procedures for lifting, lowering and carrying, pushing and pulling are identified
- 1.10 Team lifting processes are considered when moving loads
- 1.11 Appropriate personal protective equipment is determined
- 1.12 Size to weight ratio of items to be manually handled are identified

2 Plan load relocation

- 2.1 Relocation of the load is planned, consistent with the code of practice for manual handling and in accordance with the risk assessment
- 2.2 Process for relocating load is proposed including predicting and planning for potential difficulties
- 2.3 Proposed process is checked for compliance with code of practice and workplace procedures

3 Relocate load

- 3.1 Actions for lifting, lowering and carrying, pulling and pushing a load are in accordance with workplace procedures and WHS/OHS requirements
- 3.2 Applications appropriate for team relocation of load are identified
- 3.3 Team lifting tasks are coordinated
- 3.4 Planned process and route are followed

- 3.5 Relocated materials are set down without damage to goods, personnel or equipment and are checked for stability
- 3.6 Relocation is checked to see it meets work requirements and variance/s are reported

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLID1001A Shift materials safely using manual handling methods.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLID1001 Shift materials safely using manual handling methods

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate risks that may exist when manually lifting and handling materials and goods
- applying relevant legislation and workplace procedures
- communicating effectively with others when manually lifting and handling materials and goods
- implementing contingency plans when manually lifting and handling, materials and goods
- interpreting and following operational instructions and prioritising work
- interpreting manual handling risks
- modifying activities depending on operational contingencies, risk situations and environments
- operating and adapting to differences in loads and materials in accordance with standard operating procedures
- reading and interpreting instructions, procedures and information relevant to the manual lifting and handling of materials and goods
- selecting and using required personal protective equipment conforming to industry and work health and safety (WHS)/occupational health and safety (OHS) standards
- using correct manual handling practices
- working collaboratively with others when manually lifting and handling materials and goods
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- housekeeping standards and procedures
- relevant WHS/OHS procedures and guidelines concerning the manual lifting and movement of loads
- risks when manually lifting and handling materials and goods, and related precautions to control the risk, including:
 - controlled actions on a movement during lifting
 - distance over which load is to be shifted
 - frequency of shifting operations
 - load on the spine during lifting
 - postures and positions during lifting
 - rotation and side movement of the spine during lifting
 - time allowed for shifting the load
 - type, weight and position of the load
 - work layout
 - site layout and obstacles
- workplace procedures and policies for manual handling.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice

and operation manuals.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLID2022 Conduct weighbridge operations

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to conduct weighbridge operations in accordance with regulatory requirements and workplace procedures, within the transport and logistics industry.

It includes setting up for weighbridge operations, weighing loaded and unloaded vehicles, finalising weighbridge operations, and completing required records and documentation.

Work is performed under some supervision, generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

D – Load Handling

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1 Set up for weighbridge operations**
 - 1.1 Weighbridge systems, including equipment, computer and recording arrangements, are checked for operational status
 - 1.2 Tests to confirm accuracy of weighbridge operation and related functions are conducted in accordance with workplace procedures, manufacturer instructions and relevant legislation
 - 1.3 Accurate reporting of results of inspection and testing is kept in accordance with statutory requirements, workplace procedures and industry guidelines
 - 1.4 Hazards are identified, risks are assessed and control measures are implemented
 - 1.5 Faults/discrepancies in weighbridge operation are identified and appropriate action is undertaken in accordance with workplace procedures
- 2 Weigh loaded vehicles**
 - 2.1 Vehicles likely to exceed weighbridge weight limit are turned away in accordance with workplace procedures
 - 2.2 Vehicles are directed onto platform to obtain accurate weight
 - 2.3 Weight of loaded stationary vehicle is registered against vehicle and load identification
 - 2.4 Vehicle and load information is entered into workplace recording system and driver is issued with receipt and/or statement
 - 2.5 Areas of dispute are resolved or forwarded for further action to be undertaken in accordance with workplace procedures
- 3 Weigh unloaded vehicles**
 - 3.1 Vehicles are directed onto platform to obtain accurate weight
 - 3.2 Weight of unloaded stationary vehicle is registered against vehicle
 - 3.3 Proposed load weight is assessed for conformance to statutory requirements
 - 3.4 Loading operations are commenced in accordance with legal loading weight, customer requirements and workplace procedures, and vehicle is re-weighed to establish final load weight, as required
 - 3.5 Vehicle and load information are entered into workplace recording system and invoice is issued to driver, as required

- 3.6 Driver signatures on weighbridge documents, invoices or receipts are obtained in accordance with statutory and workplace requirements
- 3.7 Areas of dispute are resolved or forwarded for further action to be undertaken in accordance with workplace procedures
- 4 Complete weighbridge operations**
 - 4.1 Weighbridge systems, including equipment, computer and recording arrangements are secured or made ready for next shift
 - 4.2 Record of operations is maintained and filed in accordance with workplace procedures and statutory requirements

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLID2022A Conduct weighbridge operations.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLID2022 Conduct weighbridge operations

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- communicating and working effectively with others
- completing relevant documentation
- identifying, selecting, and efficiently and effectively using weighbridge equipment
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring and prioritising work activities in terms of planned schedule
- monitoring performance of weighbridge equipment
- operating and adapting to differences in equipment in accordance with workplace operating procedures
- reading, interpreting and following relevant instructions, procedures and information
- reporting and/or rectifying identified problems, errors or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using required personal protective equipment conforming to industry and work health safety (WHS)/occupational health and safety (OHS) standards
- setting up and maintaining weighbridge equipment
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- calculation method and approaches for metric and imperial systems
- classification procedures
- correct weighing procedures including statutory and workplace requirements
- emergency response procedures
- equipment applications, capacities, configurations, safety hazards and control mechanisms
- problems that may occur when conducting weighbridge operations and appropriate action that can be taken to resolve these problems
- records and documentation requirements for weighbridge operations
- relevant regulations for conducting weighbridge operations including current Australian Dangerous Goods (ADG) Code
- relevant WHS/OHS and environmental protection procedures and guidelines
- site layout
- weights and measures regulations
- workplace procedures for conducting weighbridge operations.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, weights and measures regulations, national Load Restraint Guide (LRG), current ADG Code, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLID3014 Load and unload vehicles carrying special loads

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to load and unload vehicles carrying special loads, in accordance with relevant state/territory roads and traffic authority licence and permit requirements and regulations, as well as specific code, regulatory and permit requirements.

It includes loading and unloading special loads onto and from a vehicle, securing and protecting vehicle and load, and completing all required documentation.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

D – Load Handling

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1 Load and unload vehicle**
 - 1.1 Load characteristics are identified and taken into account when determining appropriate loading and unloading procedures
 - 1.2 Hazardous cargo is identified and handled in accordance with required workplace procedures for hazardous and dangerous cargo
 - 1.3 Vehicle is loaded in accordance with vehicle loading regulations and workplace safety requirements
 - 1.4 Lifting aids and appliances are selected and used to aid loading procedures in accordance with workplace procedures and safety legislation
 - 1.5 Vehicle is unloaded or partially unloaded in a safe and efficient manner taking into account suitable locations, stowage, safe use of equipment and balance of remaining load
 - 1.6 Ancillary equipment is operated in accordance with company procedures and manufacturer instructions during loading and unloading operations
- 2 Secure and protect vehicle and load**
 - 2.1 Vehicle load is secured using correct load restraint and protection equipment for different loads, vehicles and carriage conditions
 - 2.2 Load is protected in accordance with legal and workplace safety requirements
 - 2.3 Load distribution is checked to ensure it is even, legal and within vehicle safe working capacity
 - 2.4 Loaded vehicle is inspected and checked for security to travel
- 3 Complete documentation**
 - 3.1 Documentation is completed and proofread in accordance with workplace procedures
 - 3.2 All required cargo transportation documentation is completed in accordance with workplace requirements

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLID3014A Load and unload vehicles carrying special loads.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLID3014 Load and unload vehicles carrying special loads

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- applying techniques for load security
- communicating effectively with others
- completing relevant documentation
- estimating size, shape and special requirements of loads
- identifying and correctly using equipment required to load and unload various types of special loads
- identifying and interpreting containers and goods coding, International Maritime Dangerous Goods (IMDG) Code markings and emergency information panels
- interpreting and following operational instructions and prioritising work
- loading and unloading a load safely
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with operating procedures
- reading and interpreting relevant instructions, procedures, information and signs
- selecting and using required personal protective equipment and conforming to industry and work health safety (WHS)/occupational health and safety (OHS) standards
- using manual handling techniques safely
- working collaboratively with others
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- characteristics of various types of special loads
- containers and goods coding, IMDG Code markings and emergency information panels, including their meaning and implications for loading and unloading processes
- housekeeping standards and procedures
- methods for securing various types of special loads
- national Load Restraint Guide (LRG)
- relevant state/territory mass and loading regulations for various types of special loads, including current Australian Dangerous Goods (ADG) Code and Australian Code for the Transport of Explosives by Road and Rail
- risks and hazards when loading and unloading various types of special loads, and related precautions to control the risk
- site layout and obstacles
- WHS/OHS procedures and guidelines for lifting and moving loads
- workplace procedures and policies for loading and unloading vehicles designed to carry special loads.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, national LRG, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLID3020 Care for livestock in transit

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to prepare and care for livestock in transit, in accordance with relevant regulations and industry codes of practice for caring for livestock in transit.

It includes making preparations to transport livestock, caring for and controlling livestock in transit, and using appropriate animal husbandry techniques, as required.

Work is performed under limited or minimum supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

D – Load Handling

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1 Prepare to transport livestock**
 - 1.1 Condition, quality and quantity of livestock to be transported is checked prior to transport operation, in accordance with client requirements and workplace procedures
 - 1.2 Job hazards are identified and required action is taken to minimise, control or eliminate identified hazards
 - 1.3 Poor quality livestock is identified and reported to specified personnel in accordance with workplace procedures
 - 1.4 Feed provisions and other requirements for livestock, prior to and during transit, are identified and organised
 - 1.5 Portable stockyards are assembled as required
- 2 Care for and control livestock in transit**
 - 2.1 Condition of livestock is regularly monitored during loading, transit and unloading, and appropriate action is taken in accordance with relevant government regulations, workplace procedures, and humane and permit requirements
 - 2.2 Working dogs and appropriate handling equipment are used to aid handling of livestock during loading and unloading operations, in accordance with regulations and workplace procedures
 - 2.3 Required action is taken for care and wellbeing of animals in an accident during transit
 - 2.4 Distressed stock is handled in an appropriate manner in accordance with government regulations and workplace procedures
- 3 Use animal husbandry techniques**
 - 3.1 Symptoms of animal diseases and parasites are identified and appropriate action is taken to control them in accordance with relevant government regulations, workplace procedures, and humane and permit requirements
 - 3.2 Documentation is completed and proofread in accordance with workplace procedures
 - 3.3 Prescribed medication is administered to livestock in accordance with veterinary directions and workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLID3020A Care for livestock in transit.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLID3020 Care for livestock in transit

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- communicating effectively with others
- completing relevant documentation
- identifying and correctly using required equipment
- implementing contingency plans
- interpreting and following operational instructions and prioritising work
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with operating procedures
- reporting and/or rectifying identified problems promptly, in accordance with regulatory requirements and workplace procedures
- reading and interpreting relevant instructions, procedures and information
- working collaboratively with others
- working systematically with required attention to detail without injury to self or others, or damage to animals or equipment.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- Australian animal welfare standards and guidelines for transporting livestock by land
- housekeeping standards and procedures when caring for livestock during transit
- insurance rights and responsibilities
- methods of securing livestock during transit
- relevant regulations for caring for livestock in transit
- risks when caring for livestock in transit and related precautions to control the risk
- specialised livestock handling equipment and procedures for its use
- work health and safety (WHS)/ occupational health and safety (OHS) procedures and guidelines for lifting and moving loads
- workplace procedures and policies for caring for livestock in transit.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLIE2008 Process workplace documentation

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to process workplace documentation in accordance with workplace requirements. Processing documentation is carried out as an integral part of work operations in the context of the workplace concerned.

It includes planning and completing documentation to fulfil an identified purpose.

Work may be performed in team and autonomous working situations.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

E – Communication and Calculation

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan documentation

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Purpose of workplace documentation is identified and confirmed

1.2 Information for completing workplace documentation is

collected, interpreted, analysed and organised as required

2 Complete documentation

- 2.1 Required documentation is prepared and/or forms are completed, in accordance with workplace policies and procedures
- 2.2 Information is entered into computer-based documents, as required
- 2.3 Logs or diaries are maintained accurately and in a timely manner, in accordance with workplace requirements

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLIE2008A Process workplace documentation.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIE2008 Process workplace documentation

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- completing workplace documentation, forms, logs or diaries
- operating and adapting to differences in computing equipment in accordance with standard operating procedures
- reading, interpreting and organising information needed for completing and processing workplace documentation, forms, logs or diaries
- working collaboratively with others when completing and processing workplace documentation, forms, logs or diaries
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment
- writing and/or entering information into computer-based documentation systems.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- protocols and procedures for processing workplace documentation using relevant workplace technology
- purpose of workplace documentation, forms, logs or diaries
- relevant work health and safety (WHS)/occupational health and safety (OHS) responsibilities
- relevant procedures and duty of care requirements
- requirements for workplace documentation, forms, logs or diaries
- sources of information for completing workplace documentation, forms, logs or diaries
- typical problems in processing workplace documentation and appropriate action and

solutions.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.
-

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLIE3002 Estimate/calculate mass, area and quantify dimensions

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to estimate and calculate mass, area and quantify dimensions of loads in accordance with workplace requirements and relevant regulations, as part of work functions within the transport and logistics industry.

It includes estimating loads to be transported or placed in storage, estimating load limits of transport and/or storage systems, and organising a load.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

E – Communication and Calculation

Unit Sector

Not applicable.

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1 Estimate loads for transport or storage**
 - 1.1 Order forms/work orders are read and requirements are noted
 - 1.2 Shape, balance characteristics, dimensions and mass of load/s are identified
 - 1.3 Area/volume required for storage is estimated
 - 1.4 Weights and volumes are totalled to calculate load requirements of transport or storage system
- 2 Estimate load limits of transport and/or storage**
 - 2.1 Allowable load limits for storage and/or transport systems are identified in accordance with workplace procedures
 - 2.2 Capacity of transport and storage systems in terms of mass, area and volume is calculated
- 3 Organise load**
 - 3.1 Load/s is restricted to allowable range
 - 3.2 Load/s is spread to ensure safe weighting on pallets, trucks, platforms or other storage or transport systems
 - 3.3 Appropriate workplace documentation is completed

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLIE3002A Estimate/calculate mass, area and quantify dimensions.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIE3002 Estimate/calculate mass, area and quantify dimensions

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- communicating effectively with others
- identifying, selecting and using relevant calculators, computing and office equipment
- interpreting and following operational instructions and prioritising work
- performing basic mathematical operations required when estimating and/or calculating mass, area and volumes of loads and transport/storage facilities including addition, subtraction, multiplication and division
- reading and interpreting relevant instructions, procedures, information and labels
- working collaboratively with others
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- Australian and international codes and regulations relevant to workplace activities
- documentation requirements for the workplace activities concerned
- focus of operation of work systems, equipment, management and site operating systems for transporting and/or storing goods and stock
- problems that may occur when estimating and/or calculating mass, area and volumes of loads and transport/storage facilities, and appropriate action that can be taken to resolve these problems
- relevant work health and safety (WHS)/occupational health and safety (OHS) and environmental protection procedures and guidelines

- workplace procedures and policies for estimating and/or calculating mass, area and volumes of loads, and transport and storage facilities, including the quantification of dimensions.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLIE3004 Prepare workplace documents

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to prepare workplace documents and forms in accordance with workplace requirements and applicable regulations or codes, as part of work activities within the transport and logistics industry.

It includes planning and preparing simple workplace documents and gathering relevant information enabling the completion of a workplace form.

Work is performed under general supervision within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

E – Communication and Calculation

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | | |
|-------------------------------------|-----|--|
| 1 Plan workplace document | 1.1 | Purpose and audience for document are identified |
| | 1.2 | Appropriate format for document is established to meet workplace requirements |
| | 1.3 | Relevant information is identified and selected for inclusion in document |
| 2 Prepare workplace document | 2.1 | Document is drafted in accordance with workplace procedures and conventions for sentence construction, grammar, spelling, style, punctuation and vocabulary appropriate for reader/s |
| | 2.2 | Document is edited and presented in a final version appropriate to task |
| 3 Complete workplace forms | 3.1 | Work related form/s is interpreted to identify information required for its completion |
| | 3.2 | Required information for completion of form is gathered from relevant sources in accordance with workplace procedures |
| | 3.3 | Form/s is completed in accordance with workplace policy and procedures, and applicable regulations and codes |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLIE3004A Prepare workplace documents.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIE3004 Prepare workplace documents

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- communicating effectively with others
- completing documentation related to work activities
- reading and interpreting relevant instructions, procedures, information and labels
- reading, writing and comprehending simple statements in English
- working collaboratively with others
- working systematically with required attention to detail.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- conventions for sentence construction, grammar, spelling, style and punctuation
- equipment and materials required for completing documents and forms, and instructions and precautions for their use
- format and layout of various documents and forms used in workplace activities
- relevant Australian and international codes of practice and regulations relevant to documents and/or forms being prepared
- relevant work health safety (WHS)/occupational health and safety (OHS) and environmental protection procedures and guidelines
- workplace procedures and policies for completing documents/forms.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in *the Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLIF2010 Apply fatigue management strategies

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to apply fatigue management strategies within the transport and logistics industry. Work is undertaken in compliance with relevant legislation, regulations, codes and guidelines.

It includes identifying and acting on signs of fatigue and implementing appropriate strategies to minimise fatigue during work activities, in particular when operating equipment, trains, vehicles, load shifting equipment, marine vessels and aircraft.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

F – Safety Management

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | |
|---|--|
| 1 Identify and act on signs of fatigue | 1.1 Potential causes of fatigue are identified and action is taken to minimise their effects in accordance with company procedures |
|---|--|

- 1.2 Personal warning signs of fatigue are recognised and necessary steps are taken in accordance with workplace procedures, to ensure that effective work capability and alertness are maintained
- 2 Implement strategies to minimise fatigue**
- 2.1 Workplace procedures are assessed to minimise fatigue
- 2.2 Factors that increase the risk of fatigue-related accidents and incidents are minimised
- 2.3 Fatigue management strategies are implemented in accordance with workplace policy
- 2.4 Lifestyle choices are made that promote the effective long-term management of fatigue
- 2.5 Effective practices in combating fatigue are adopted and applied
- 2.6 Personal fatigue management strategies are communicated to relevant people
- 2.7 Appropriate counter measures are planned to combat fatigue

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLIF2010A Apply fatigue management strategies.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIF2010 Apply fatigue management strategies

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- adapting to changes in rosters and standard operating procedures as they relate to fatigue management
- adjusting lifestyle patterns to ensure effective fatigue management during work activities
- applying precautions and required action to minimise and control the effects of fatigue when carrying out own work functions
- applying relevant legislation and workplace procedures
- communicating effectively with others when applying fatigue management strategies
- identifying and meeting own learning needs about fatigue management related matters
- modifying activities and taking appropriate initiatives to manage fatigue in the workplace depending on work contexts, risk situations and environments
- reading and interpreting instructions, procedures, regulations and signs related to fatigue management and applying them to work activities
- recognising symptoms of fatigue and taking appropriate action in accordance with fatigue management regulations and workplace procedures
- working collaboratively with others to manage and minimise the effects of fatigue during work activities.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- causes and effects of fatigue on workers
- factors that increase fatigue-related accidents
- how fatigue affects workplace performance

- how fatigue contributes to workplace accidents
- lifestyles that promote effective long-term fatigue management
- relevant fatigue management codes, regulations, permit and licence requirements
- relevant work health and safety (WHS)/occupational health and safety (OHS) regulations as they relate to fatigue
- risks and hazards created by workplace fatigue
- sources of information on fatigue
- strategies and ways of managing fatigue
- ways of recognising fatigue
- workplace policies and procedures related to fatigue management and the control of factors that can contribute to fatigue and fatigue-related accidents.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or other simulation
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.
-

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLIH2001 Interpret road maps and navigate pre-determined routes

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to interpret road maps and to navigate routes as part of transport operations.

It includes identifying and determining the most appropriate route, and completing required route documentation in accordance with operational requirements.

Work is performed under general or limited supervision. It involves the application of map reading principles and procedures when interpreting street directories and road maps, and following pre-determined routes.

Work must be carried out in accordance with relevant state/territory roads and traffic authority regulations.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

H – Route Planning and Navigation

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Identify and determine pre-planned route

2 Complete necessary documentation

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1 Pre-determined route documentation is accessed and interpreted
- 1.2 Relevant street directory, global positioning system (GPS) and road maps are identified and accessed
- 1.3 Street directory, GPS and road map symbols are recognised and interpreted
- 1.4 Points of departure and destination are identified in a directory index and information is used to locate designated places on appropriate map
- 1.5 Pre-determined route directions are interpreted and route is traced using a street directory, GPS and road map
- 1.6 Key intersections and other landmarks along route are identified for use in following planned route
- 1.7 Alternative contingency routes are identified for emergencies or traffic delays
- 1.8 Pre-determined route is correctly followed
- 2.1 Required route documentation is completed in accordance with purpose of transportation and workplace requirements
- 2.2 Required route documentation is filed in accordance with workplace requirements

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLIH2001A Interpret road maps and navigate pre-determined routes.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIH2001 Interpret road maps and navigate pre-determined routes

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- completing documentation related to route navigation
- estimating route distances using map information
- interpreting and following operational instructions and prioritising work
- navigating a pre-determined route
- operating and adapting to differences in equipment in accordance with standard operating procedures
- operating electronic communications equipment in accordance with workplace protocols
- planning alternative contingency routes for road works, emergencies or delays
- planning own work, predicting consequences and identifying improvements
- plotting a route from one destination to another relevant to job role
- reading and interpreting relevant instructions, procedures, information and signs
- using global positioning system (GPS) devices to navigate pre-determined routes as required
- using maps and other route documentation to correctly identify and interpret:
 - map symbols
 - roads and intersections
 - town and suburb locations
- working collaboratively with others as required (such as fleet managers, sales team)
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- current information about accidents or emergencies that might close or restrict traffic on a particular route
- height, width and mass limitations of bridges, tunnels and other critical physical structures along a possible route
- location of service stations/rest stops as required
- operational procedures for interpreting road maps, using GPS devices and navigating routes
- relevant state/territory permit and licence regulations and requirements
- road conditions for various routes, including sections undergoing road works
- security hazards and issues
- traffic conditions at various times of the day/night along specific routes
- typical problems that may arise concerning interpreting road maps, using GPS devices and navigating pre-determined routes, and appropriate action that should be taken
- workplace requirements for recording and documenting route information.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry:
 - GPS
 - road map

- street directory.

A simulator/online assessment is not suitable for the final assessment of this unit of competency.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLIH3002 Plan and navigate routes

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to plan and navigate routes as part of transport operations, in accordance with relevant state/territory roads and traffic authority regulations.

It includes interpreting information from a road map, street directory or global positioning system (GPS) device; planning the most appropriate route taking into account pertinent factors; and completing required trip documentation in accordance with operational requirements.

This unit relates to the work of transport and distribution personnel involved in passenger services and/or the delivery of a range of possible goods and materials including valuables, secured products documents and materials.

Work is performed under general or limited supervision.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

H – Route Planning and Navigation

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Interpret street maps

2 Plan routes

3 Follow planned route

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1 Symbols in a street directory/road map/GPS are recognised and interpreted
- 1.2 Places are identified in a directory index and information is used to locate places on appropriate map
- 2.1 Given a location and a destination, the most direct and alternative routes between two points are identified using a street directory/road map/GPS
- 2.2 Hazards are identified, risks are assessed and control measures are implemented
- 2.3 Information on height, width and load limits of road infrastructure and other restrictions on thoroughfares is accessed, interpreted and taken into account when planning a route for a journey, as required
- 2.4 Suitable route is selected to ensure the most efficient, safe, secure and legal transport operation, taking into account relevant criteria for transport operation concerned
- 3.1 Planned route is correctly followed with aid of a street directory, road map and/or GPS system
- 3.2 Geographic regions, tourism features and other places of interest are identified, as required
- 3.3 Route documentation is completed in accordance with purpose of transportation and workplace requirements
- 3.4 Parking procedures are observed in accordance with enterprise procedures and relevant legislative requirements

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLIH3002A Plan and navigate routes.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIH3002 Plan and navigate routes

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- accessing and interpreting required information and developing contingency routes (including road restrictions, traffic conditions, service stations/rest stops)
- adapting to changes and difference in vehicle navigation technology, maps and street directories as they relate to route planning
- adapting to changes in vehicle navigation technology, maps and street directories as they relate to route planning
- applying fatigue management techniques
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- completing relevant documentation
- implementing contingency arrangements
- interpreting and following operational instructions and prioritising work
- interpreting information to allow effective route planning
- modifying route planning activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in vehicles, loads and equipment in accordance with standard operating procedures
- planning alternative routes for contingencies such as road works, emergencies or delays
- planning and navigating a route effectively
- planning for transport routes to meet workplace requirements
- planning routes in accordance with workplace guidelines
- reading and interpreting relevant instructions, procedures, information and signs:
 - estimating route distances using map information
 - identifying roads and intersections
 - identifying town and suburb locations
 - reading and interpretation of map symbols
- reporting and/or rectifying identified problems promptly, in accordance with workplace procedures

- selecting and using relevant route planning and navigation technology including GPS devices.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- basic GPS operation
- current information about accidents or emergencies that might close or restrict traffic on particular routes
- features and contents of maps and street directories, and techniques for their use in transport navigation
- known traffic conditions at various times of the day along specific routes
- location of service stations and rest stops
- operational procedures for planning and navigating transport routes
- physical hazards such as height, width and mass limitations of bridges, tunnels and other critical physical structures along a possible route
- relevant state/territory permit and licence regulations and requirements
- road conditions for various routes, including sections undergoing road works
- security hazards on long routes
- workplace requirements for recording and documenting route information.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy

requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

A simulator/online assessment is not suitable for the final assessment of this unit of competency.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLIL5019 Implement and monitor transport logistics

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to implement and monitor transport logistics in accordance with relevant regulatory requirements, standards and codes of practice, including the Australian Dangerous Goods (ADG) Code and workplace procedures.

It includes mobilising resources, coordinating multi-modal transport activities, monitoring consignment/s and implementing a contingency management strategy.

Work is under general guidance on progress and outcomes of work. It requires discretion and judgement for self and others in planning and using resources, services and processes to achieve required outcomes.

The unit generally applies to those with responsibility for resource coordination and allocation, who lead individuals or teams.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

L – Resource Management

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1 Mobilise resources**
 - 1.1 Optimal resource level is acquired to meet operational schedule requirements
 - 1.2 Relevant regulatory and insurance requirements are determined and implemented
 - 1.3 Allocated resources are assessed and monitored to ensure operational effectiveness and efficiency
 - 1.4 Changes to resource allocation are undertaken where deficiencies or over-supply are apparent, in accordance with enterprise procedures
- 2 Coordinate multi-modal transport activities**
 - 2.1 Facilities, personnel and equipment are made ready to accommodate interchange functions
 - 2.2 Security arrangements are invoked as required
 - 2.3 Loading and unloading operations are conducted in accordance with operational schedule and applicable statutory requirements, codes of practice and enterprise procedures
 - 2.4 Relevant documentation is completed/updated in accordance with operational schedule and reporting requirements
- 3 Monitor consignment tracking**
 - 3.1 Consignment tracking systems are monitored against workplace quality standards
 - 3.2 Variations from workplace quality standards are identified and appropriate action is initiated to rectify identified problems or to institute required improvements
- 4 Implement contingency management strategy**
 - 4.1 Operational schedule is continually reviewed in taking into account information updates, reports and feedback
 - 4.2 Nature, extent and impact of issues or incidents are identified and assessed against contingency management strategy
 - 4.3 Relevant information is processed to establish priorities and responses for dealing with issues or incidents
 - 4.4 Operations are redirected and controlled to meet changes in transport environment and tasks, in accordance with enterprise procedures
 - 4.5 Liaison is initiated and maintained with organisations/individuals affected by changed operational schedules

4.6 Actions undertaken are clearly documented and filed

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLIL5019A Implement and monitor transport logistics.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIL5019 Implement and monitor transport logistics

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate hazards that may exist during work activities
- applying relevant legislation and workplace procedures
- communicating effectively with others when implementing and monitoring transport logistics
- completing documentation related to implementing and monitoring transport logistics
- implementing contingency plans
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with standard operating procedures
- operating electronic communication equipment to required protocol
- prioritising work and coordinating self and others in relation to transport logistics activities
- providing leadership and working collaboratively with others
- reading and interpreting transport schedules, regulatory requirements, customer instructions, workplace procedures and manuals relevant to implementing and monitoring transport logistics
- reporting and/or rectifying identified problems promptly, in accordance with regulatory requirements and workplace procedures
- selecting and applying appropriate application of technology, information systems and procedures
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- application of current competencies within functional activity
- application of relevant Australian standards and associated certification requirements
- business policies, procedures and plans including procedures for outsourcing components of operations and engaging additional resources
- code, regulatory, permit and licence requirements relevant to transport logistics
- operational transport logistics systems, resources, management and workplace operating systems
- problems that may occur when implementing and monitoring transport logistics and action that can be taken to resolve or report these problems
- relevant work health and safety (WHS)/occupational health and safety (OHS) and environmental protection procedures and regulations
- relevant regulations, codes of practice and legislative requirements including local and international regulations relevant to transport logistics
- relevant workplace documentation procedures
- resource availability including the competencies of individuals in the team/group
- risks and hazards related to implementing and monitoring transport logistics and ways of controlling the risks involved
- transport and equipment applications, capacities, configurations, safety hazards and control mechanisms
- workplace policies and procedures, including those covering issue resolution and grievance
- workplace procedures for implementing and monitoring transport logistics.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLILIC2001 Licence to operate a forklift truck

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit specifies the skills and knowledge required to operate a forklift truck safely.

Forklift truck means a powered industrial truck equipped with lifting media made up of a mast and an elevating load carriage to which is attached a pair of fork arms or other arms that can be raised 900 mm or more above the ground, but does not include a pedestrian-operated truck or a pallet truck.

A person performing this work is required to hold a forklift truck high risk work (HRW) licence.

This unit requires a person operating a forklift truck to plan the work, conduct routine checks on a forklift truck, shift loads in a safe manner, and safely shut down and secure equipment after completing operations.

Licensing/Regulatory Information

This unit is based on the licensing requirements of Part 4.5 of the Model Work Health and Safety (WHS) Regulations, HRW and meets Commonwealth, state and territory HRW licensing requirements.

Any alteration to this unit would result in a unit that would not be acceptable to work health and safety (WHS)/occupational health and safety (OHS) regulators for the purpose of licensing.

Pre-requisite Unit

Not applicable.

Competency Field

LIC – Licensing

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Plan work

- 1.1 Potential workplace hazards are identified
- 1.2 Risk control measures are identified consistent with regulatory requirements and the hierarchy of control
- 1.3 Appropriate forklift truck is selected in accordance with load and workplace conditions
- 1.4 Working area is inspected to determine appropriate paths for moving loads and forklift truck in accordance with workplace conditions
- 1.5 Methods for communicating are identified and confirmed in accordance with workplace procedures

2 Conduct routine checks

- 2.1 Prior to operation, forklift truck is visually checked for any damage or defects
- 2.2 All signage and labels are checked to ensure they are visible and legible, in accordance with the appropriate standard
- 2.3 All controls are located, identified and confirmed
- 2.4 Pre-start operational checks are carried out in accordance with manufacturer specifications and workplace procedures
- 2.5 Forklift truck is started in accordance with manufacturer specifications and workplace procedures, and is checked for any abnormal noise
- 2.6 Post-start operational checks are carried out in accordance with manufacturer specifications and workplace procedures

- 2.7 All forklift truck functions and safety devices are tested to their maximum in accordance with manufacturer specifications and workplace procedures
- 2.8 Issues, defects and damage identified during routine checks are reported and recorded in accordance with workplace procedures, and appropriate action is taken

3 Shift load

- 3.1 Weight of load is assessed to ensure compliance with forklift truck data plate specifications
- 3.2 Appropriate hazard prevention/control measures are implemented and communicated to personnel in the work area
- 3.3 Forklift truck is operated at a safe speed in accordance with manufacturer specifications and workplace procedures
- 3.4 Loads are moved and placed to ensure stability of material and avoidance of hazards
- 3.5 Load movement is monitored constantly to ensure safety of personnel and load, and structural stability
- 3.6 Unplanned and/or unsafe situations are responded to in accordance with workplace procedures and emergency plans

4 Shut down and secure forklift truck

- 4.1 Forklift truck is parked to avoid hazards
- 4.2 Forklift truck is shut down in accordance with manufacturer specifications and workplace procedures
- 4.3 Routine post-operational forklift truck checks are carried out in accordance with manufacturer specifications and workplace procedures
- 4.4 Forklift truck is secured to prevent unauthorised access/use
- 4.5 All defects and damage are reported and recorded in accordance with manufacturer specifications and workplace procedures, and appropriate action is taken

Foundation Skills

The language, literacy, numeracy and employment skills that are essential to performance that are not explicit in the unit are listed below.

Skill	Performance feature
Employment skills to:	<ul style="list-style-type: none"> • operate a forklift truck in different types of workplaces transferring key principles of safe operation to different contexts • improve own performance in safely and efficiently operating a forklift truck by incorporating learnings from different workplaces and different conditions into current performance
Numeracy skills to:	<ul style="list-style-type: none"> • interpret numerical information including: <ul style="list-style-type: none"> • selecting appropriate forklift in accordance with load and workplace conditions • load weight assessment, to ensure compliance with forklift truck data plate specifications • controlling and monitoring instrument readings
Language skills to:	<ul style="list-style-type: none"> • use and interpret vocabulary specific to forklift truck operations and workplace procedures to communicate with other workplace personnel • use non-verbal feedback to support effective communication • use relevant communications conventions
Literacy (reading) skills to:	<ul style="list-style-type: none"> • interpret documentation that includes technical specificity including: <ul style="list-style-type: none"> • forklift truck data plate • plant operation manuals and manufacturer specifications • workplace procedures, including emergency plan • workplace signage and labels
Literacy (writing) skills to:	<ul style="list-style-type: none"> • accurately record and maintain information relating to operating a forklift truck, including: <ul style="list-style-type: none"> • incident reports • vehicle checking and maintenance records
Self-management skills	<ul style="list-style-type: none"> • implement risk control measures • initiate emergency management strategies

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit is equivalent to TLILIC2001A Licence to operate a forklift truck

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLILIC2001 Licence to operate a forklift truck

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

A person who demonstrates competency in this unit must provide evidence of safely operating a forklift truck and satisfy all of the unit elements, performance criteria and foundations skills requirements on at least one occasion including:

- applying risk assessment and hazard control strategies, including hierarchy of control as applied to safely operating a forklift truck
- carrying out post-start operational checks, which must ensure:
 - attachment movements and control functions are smooth and comply with operating requirements
 - hazard warning systems (e.g. lights and horns) are functional
 - safety devices are checked, including
 - deadman's switch
 - emergency descent device (hydraulic)
 - reversing beepers
 - start-up is in accordance with procedures
 - steering, transmission and brake functions comply with operating requirements
- carrying out pre-start operational checks, which must include:
 - battery charge checks, as required
 - ensuring availability of logbook, records, handbook and/or operating manuals
 - fitting and interpreting forklift truck data plate
 - fluid checks
 - forklift truck attachment security checks
 - identifying approved modifications and/or attachments fitted, to manufacturer specifications in accordance with forklift truck or attachment data plate
 - locating, identifying and confirming all controls
 - safety equipment checks
 - signage and label visibility and legibility checks
 - updating records as required
- communicating with other workplace personnel through
 - using appropriate worksite protocols

- listening
- making and interpreting hand signals
- questioning to confirm understanding
- signage
- verbal and non-verbal language
- written instructions
- complying with Commonwealth, state and territory work health and safety (WHS)/occupational health and safety (OHS) legislation and regulations
- conducting and monitoring safe forklift truck operations that include moving loads safely, driving and manoeuvring, picking up and placing loads at various stack heights and carrying out all functions to the maximum height and load capacity
- driving a forklift truck with load in forward and reverse, while maintaining visibility
- planning and preparing for forklift truck operations including:
 - conducting a workplace risk assessment
 - identifying hazards associated with operating a forklift truck, which must include
 - forklift truck instability (e.g. due to overloading, poor load placement, irregular loads)
 - ground conditions (e.g. condition of pavement, slopes)
 - insufficient lighting
 - overhead hazards (e.g. electric lines, service pipes)
 - traffic (e.g. pedestrians, vehicles, other plant) and the risk of collision with people, moving plant and fixed structures
 - weather conditions (e.g. wind, lightning, rain)
 - selecting hazard prevention strategies in accordance with the hierarchy of control
 - putting in place effective controls for identified hazards
 - visually checking a forklift truck for any damage or defects prior to operation including
 - evidence of damage
 - leaks
 - structural weaknesses (including paint separation or stressed welds)
- receiving and interpreting workplace instructions, safety information and emergency procedures
- shutting down a forklift truck in accordance with manufacturer specifications and workplace procedures including
 - parking in a suitable location away from dangerous areas
 - correctly positioning fork arms (tips down, tilted forward, lowered to ground)
 - selecting appropriate transmission/gear for parking (relevant to transmission type)
 - applying hand/parking brake
 - turning off engine power
 - removing ignition key as required
 - shutting off LPG gas cylinder valve as required

- securing equipment in accordance with manufacturer specifications and against unauthorised operation
- securing site
- ensuring access ways are clear
- identifying and segregating defective equipment and reporting to authorised personnel
- connecting batteries to charger as required
- verifying problems and equipment faults, and implementing appropriate response procedures to unplanned and/or unsafe situations including
 - environmental conditions (e.g. wind, lightning, storms)
 - failure/loss of control (e.g. brakes and steering)
 - failure of equipment (e.g. hydraulic system)
 - forklift truck instability (e.g. due to deterioration of ground condition, overloading, poor load placement, irregular loads).

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- Australian and industry standards relevant to operating a forklift truck
- Commonwealth, state or territory WHS/OHS legislation and approved codes of practice in relation to one's own responsibilities
- forklift truck characteristics and capabilities (including use of load data plates)
- forklift truck operations and safe operating techniques
- hierarchy of control:
 - elimination
 - substitution
 - isolation
 - engineering controls
 - administrative controls
 - personal protective equipment (PPE)
- methodology to determine weight of a load including the estimation or determination from labels, markings or load paperwork such as:
 - control labels
 - forklift data plates/labels
 - forklift warning decals
- organisational and workplace standards, requirements, policies and procedures for operating a forklift truck
- procedures for recording, reporting and maintaining workplace records and information
- relevant Australian and industry standards, codes of practice and guidelines to safely

- operate a forklift truck
- risk control measures including:
 - barricades and traffic control (e.g. traffic management plan)
 - compliance with permit condition requirements from electrical supply authority, including
 - adequate illumination
 - disconnected power
 - excavation safeguards
 - insulated electric lines
 - maintaining safety observer zone
 - movement of obstructions
 - observing limits of approach
 - pedestrian control (barricades, signs, etc.)
 - power disconnection or compliance with electrical supply authority requirements
 - safety tags on electrical switches/isolators
 - using safety observer inside exclusion zone
 - using personal protective equipment
 - selecting forklift truck to suit load and workplace conditions
 - typical routine problems encountered operating a forklift truck and equipment, and adjustments required for correction.

Assessment Conditions

Assessments must be conducted by an assessor accredited for this high risk work (HRW) licence class in the Commonwealth/state/territory where the licence will be obtained (i.e. an assessor authorised by a Commonwealth/state/territory WHS/OHS regulator).

As a minimum, assessors must satisfy applicable regulatory requirements, which may include requirements in the Standards for *Registered Training Organisations* current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and all assessment must be conducted in the English language.

Assessment of performance must be undertaken in the workplace and/or under realistic workplace conditions which typically reflect:

- performing tasks/activities within timelines that would be expected in a workplace
- standard and authorised work practices, safety requirements and environmental constraints
- using full-scale equipment

Forklift truck operation assessment must be conducted in a working zone in accordance with state/territory arrangements.

If the working zone is located at a 'live' site, assessment should continue in all weather conditions unless the safety of the candidate or others could be compromised.

Simulators must **not** be used in the assessment of this unit of competency.

Accredited assessors are responsible for ensuring that candidates have access to:

- a suitable forklift truck that complies with AS 2359 Powered industrial trucks and is in a safe condition
- associated equipment appropriate to forklift truck operations
- suitable loads
- required personal protective equipment (PPE) for the purpose of Performance Assessment
- relevant workplace procedures and standards for operating a forklift truck, including:
 - approved codes of practice and guidance
 - relevant Australian and international technical standards
 - manufacturer guidelines (instructions, specifications or checklists) for the purpose of Performance Assessment
 - relevant industry standards and operating procedures (where applicable)
 - safe work method statements (SWMS), as required.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLILIC2001A Licence to operate a forklift truck

Modification History

Not Applicable

Unit Descriptor

Unit Descriptor	This unit specifies the outcomes required for the operation of a powered industrial truck equipped with a mast and an elevating load carriage to which is attached a pair of fork arms or other attachment, for licensing purposes. This definition also includes a truck on which the operator is raised with the attachment for order-picking.
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Application of the Unit

Application of the Unit	<p>THIS UNIT REQUIRES THE OPERATOR TO BE ABLE PLAN THE WORK, CONDUCT ROUTINE CHECKS ON THE FORKLIFT, SHIFT LOADS IN A SAFE MANNER, AND SHUT DOWN AND SECURE THE EQUIPMENT AFTER THE COMPLETION OF OPERATIONS.</p> <p>This unit is based on the National Standard for Licensing Persons Performing High Risk Work.</p> <p>This unit in its current form meets state and territory licensing requirements. Any alteration will result in a unit which is not acceptable to regulators for the purpose of licensing.</p>
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability Skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT <i>Elements describe the essential outcomes of a unit of competency.</i>	PERFORMANCE CRITERIA <i>Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.</i>
1. Plan work	1.1 Potential workplace <i>hazards</i> are identified 1.2 <i>Hazard control measures</i> are identified consistent with <i>appropriate standards</i> to ensure the safety of personnel and equipment 1.3 Appropriate <i>forklift</i> truck is selected according to the load and workplace conditions 1.4 Working area is inspected to determine appropriate path of movement for loads and forklift truck 1.5 <i>Communication methods</i> are identified according to <i>procedures</i>
2. Conduct routine checks	2.1 Forklift is visually checked for any damage or defects 2.2 All <i>signage and labels</i> are visible and legible according to the <i>appropriate standard</i> 2.3 All controls are located and identified 2.4 <i>Pre-start operational checks</i> are carried out according to <i>procedures</i> 2.5 <i>Forklift</i> is started according to <i>procedures</i> and checked for any abnormal noise 2.6 <i>Post-start operational checks</i> are carried out according to <i>procedures</i> 2.7 All forklift functions and safety devices are tested to their maximum according to <i>procedures</i>

	2.8 Defects and damage are reported and recorded according to <i>procedures</i> , and appropriate action is taken
3. Shift load	<p>3.1 The weight of load is assessed to ensure compliance with <i>forklift</i> truck data plate specifications</p> <p>3.2 Appropriate <i>hazard prevention/control measures</i> are implemented and communicated with personnel in the work area</p> <p>3.3 <i>Forklift</i> is operated at a safe speed and according to <i>procedures</i></p> <p>3.4 Loads are moved and placed to ensure stability of material and avoidance of hazards</p> <p>3.5 Load movement is monitored constantly ensuring safety to personnel and load, and structural stability</p> <p>3.6 <i>Unplanned and/or unsafe situations</i> are responded to in line with <i>procedures</i></p>
4. Shut down and secure forklift truck	<p>4.1 <i>Forklift</i> truck is parked to avoid hazards</p> <p>4.2 Forklift is <i>shut down</i> according to <i>procedures</i></p> <p>4.3 Routine post-operational forklift checks are carried out according to <i>procedures</i></p> <p>4.4 Forklift is secured to prevent unauthorised access/use</p> <p>4.5 All defects and damage are reported and recorded according to <i>procedures</i>, and appropriate action is taken</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Required skills:

- Accurately interpret information relating to conducting forklift truck operations (e.g. procedures)
- Safely conduct forklift truck operations including all functions to the maximum height and load capacity
- Identify hazards associated with the operation of the forklift truck, assess risks and put into place effective hazard prevention/control measures for those hazards identified
- Use communication skills at a level sufficient to communicate with other site personnel (e.g. receive and interpret work instructions, safety information, emergency procedures)

REQUIRED SKILLS AND KNOWLEDGE

- Drive forklift with load in forward and reverse, maintaining visibility
- Verify problems and equipment faults and demonstrate appropriate response procedures

Required knowledge:

- Methodology of determining the weight of a load
- Commonwealth, state or territory OH&S legislation, standards relevant to the safe operation for the forklift trucks
- Understanding of forklift characteristics and capabilities (including use of load data plates)
- Understanding of the hierarchy of hazard identification and control
- Organisational and workplace standards, requirements, policies and procedures for conducting operations for the crane class
- Procedures for the recording, reporting and maintenance of workplace records and information
- Forklift truck operations and safe operating techniques
- Typical routine problems encountered in the operation of the crane and equipment and adjustments required for correction

Evidence Guide**EVIDENCE GUIDE**

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for the Training Package.

Overview of assessment

- Successful assessment of this unit meets the competency requirement of the National Standard for Licensing Persons Performing High Risk Work.
- State/territory OH&S regulators have mandated the use of Assessment Instruments and Instructions for Assessment for this unit which have been endorsed by the national body responsible for OH&S matters.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

- Compliance with OH&S licensing legislation.
- Communicate and work safely with others in the work area.
- Identify hazards associated with the operation of the forklift truck and put in place effective hazard controls for those hazards identified.

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • Conduct pre-start-up, operational, moving loads and shut down and secure checks of the forklift truck according to procedures. • Operate the forklift truck and move loads safely, including driving and manoeuvring, picking up and placing of loads at various stack heights. • Drive forklift truck with load in forward and reverse, maintaining visibility.
Context of and specific resources for assessment	<ul style="list-style-type: none"> • Assessment of the safe application of knowledge and skills to workplace tasks (performance) must be undertaken using the endorsed Assessment Instrument. • Assessment of performance must be undertaken either in the workplace or in a realistically simulated workplace setting. • Assessment must occur under standard and authorised work practices, safety requirements and environmental constraints. • Applicants must have access to: <ul style="list-style-type: none"> • Personal Protective Equipment (PPE) for the purpose of the Performance Assessment • associated equipment appropriate to forklift truck operations • suitable loads as described by the endorsed Assessment Instrument • manufacturers specifications • appropriate forklift truck in a safe condition.
Method of assessment	<ul style="list-style-type: none"> • Assessment must be conducted using the endorsed Assessment Instrument. These Instruments provide instruction on their application. • The use of 'simulators' in the assessment of this unit of competency is not acceptable. • Assessment may be in conjunction with the assessment of other units of competency. • Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge. • Assessment must confirm a reasonable inference that competency is not only able to be satisfied under the particular circumstance, but is able to be transferred to other circumstances.
Guidance information for	<ul style="list-style-type: none"> • Further information about endorsed Assessment Instruments may be obtained from state/territory

EVIDENCE GUIDE**assessment**

OH&S regulators.

Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below.

Hazards

May include but not limited to:

- ground conditions (e.g. condition of pavement, slopes)
- overhead hazards (e.g. powerlines, service pipes)
- insufficient lighting
- traffic (e.g. pedestrians, vehicles, other plant)
- weather (e.g. wind, lightning, rain)
- forklift instability (e.g. overloading, poor load placement, irregular loads)
- other hazards (e.g. dangerous materials)

Hazard control measures

Refers to the systematic process of eliminating or reducing the risk to personnel and property through the application of controls

It includes the application of the hierarchy of control, the six-step preference of control measures to manage and control risk:

- 1 elimination
- 2 substitution
- 3 isolation
- 4 engineering control measures
- 5 using safe work practices
- 6 personal protective equipment

Appropriate standards

May include but not limited to:

- legislation
- Australian standards
- manufacturer's specifications
- industry standards (where applicable)

RANGE STATEMENT	
Forklift truck	<p>May include but not be limited to:</p> <ul style="list-style-type: none"> • counterbalanced • reach trucks • rough terrain • internal combustion petrol, diesel, gas • electric
Communications methods	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • verbal and non-verbal language • written instructions • signage • hand signals • listening • questioning to confirm understanding • appropriate worksite protocol
Procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • manufacturer's guidelines (instructions, specifications or checklists) • industry operating procedures • workplace procedures (work instructions, operating procedures, checklists)
Pre-start operational checks	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • safety devices fitted where appropriate • forklift data plate fitted and interpreted • logbook, handbook or operating manuals available • external visual check including, evidence of damage, leaks, visual evidence of structural weaknesses (including paint separation or stressed welds) is carried out • forklift attachment is checked for security • approved modifications and/or attachments fitted to manufacturer's specifications (e.g. as per forklift or attachment data plate) are identified • checks for adaptations or modifications outside manufacturer's specifications (e.g. not listed on the forklift or attachment data plate) are carried out • maintenance logbook/records checked

RANGE STATEMENT	
Post-start operational checks	<p>May include checks of the forklift truck and equipment after start-up to ensure:</p> <ul style="list-style-type: none"> • hazard warning systems (for example lights and horns), are functional • attachment movements and control functions are smooth and comply with operating requirements • steering, transmission and brake functions comply with operating requirements
Hazard prevention/control measures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • barricades and traffic control • safety tags on electrical switches/isolators • insulated powerlines • safety observer used inside exclusion zone • disconnected power • pedestrian control (barricades, signs, etc.) • excavation safeguards • movement of obstructions • personal protective equipment • adequate illumination
Unplanned and/or unsafe situations	<p>May include but not limited:</p> <ul style="list-style-type: none"> • failure/loss of control (e.g. brakes and steering) • failure of equipment (e.g. hydraulic system) • environmental condition
Shut down	<p>May include, but is not limited to:</p> <ul style="list-style-type: none"> • parking in a suitable location away from dangerous areas • fork arms are correctly positioned (tips down, tilted forward, lowered to ground) • appropriate transmission/gear is selected for parking (relevant to transmission type) • hand/parking brake is applied • engine power is turned off • ignition key is removed (if applicable) • LPG gas cylinder valve is shut off (where fitted) • securing equipment against unauthorised operation • securing the site • ensuring access ways are clear • identifying and segregating defective equipment

RANGE STATEMENT	
	and reporting to authorised personnel <ul style="list-style-type: none">• batteries are connected to the charger (if applicable)

Unit Sector(s)

Not Applicable

TLILIC2005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more)

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit specifies the skills and knowledge required to safely operate a boom-type elevating work platform where the length of the boom is 11 metres or more.

Boom-type elevating work platform means a telescoping device, hinged device, or articulated device, or any combination of these, used to support a platform on which personnel, equipment and materials may be elevated.

A person performing this work is required to hold a boom-type elevating work platform high risk work (HRW) licence.

This unit requires a person operating a boom-type elevating work platform to plan the work, conduct routine checks, set up elevating work platform, operate elevating work platform, and shut down and secure elevating work platform.

Licensing/Regulatory Information

This unit is based on the licensing requirements of Part 4.5 of the Model Work Health and Safety (WHS) Regulations, HRW and meets Commonwealth, state and territory HRW licensing requirements.

Any alteration to this unit would result in a unit that would not be acceptable to work health and safety (WHS)/occupational health and safety (OHS) regulators for the purpose of licensing.

Pre-requisite Unit

Not applicable.

Competency Field

LIC – Licensing

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan work

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Potential workplace hazards are identified

1.2 Hazard control measures are identified consistent with appropriate standards to ensure the safety of personnel and equipment

1.3 Elevating work platform is appropriate for the task

1.4 Appropriate communications methods are identified

2 Conduct routine checks

2.1 Service logbook for elevating work platform is checked for compliance

2.2 Elevating work platform is visually checked for damage or defects in accordance with procedures

2.3 Routine pre-operational checks are carried out in accordance with procedures

2.4 Safety equipment is inspected in accordance with procedures

2.5 Elevating work platform is accessed in a safe manner

2.6 Safety equipment is fitted and secured to elevating work platform in accordance with procedures

2.7 All controls are located and identified

2.8 Elevating work platform is started in accordance with procedures

2.9 All safety devices are identified and tested in accordance with procedures

2.10 Post-start operational checks are carried out in accordance with procedures

- 2.11 Communications equipment is checked for serviceability
- 2.12 All damage and defects are reported and recorded in accordance with procedures, and appropriate action is taken
- 3 Set up elevating work platform**
 - 3.1 Ground suitability is inspected and checked
 - 3.2 Elevating work platform is driven to or located at work area in accordance with procedures
 - 3.3 Elevating work platform is positioned for work application and stability in accordance with procedures
 - 3.4 Appropriate hazard prevention/control measures are applied to work area in accordance with procedures
 - 3.5 Work gear and tools are stowed and secured
- 4 Operate elevating work platform**
 - 4.1 Elevating work platform is operated using all relevant plant movements in accordance with procedures and appropriate standards
 - 4.2 Elevating work platform is mobilised using best mobile practice and appropriate procedures
 - 4.3 Elevated working platform operations are monitored constantly, to ensure safety of personnel and stability
 - 4.4 Unplanned and/or unsafe situations are responded to in accordance with procedures
- 5 Shut down and secure elevating work platform**
 - 5.1 Elevating work platform is lowered and stowed in accordance with procedures
 - 5.2 Relevant motion locks and brakes are applied as required
 - 5.3 Safety equipment is disconnected from platform
 - 5.4 Egress from elevated work platform is conducted in accordance with procedures
 - 5.5 Outriggers/stabilisers are stowed and secured in accordance with procedures as required
 - 5.6 Plates or packing are stowed and secured as required
 - 5.7 Elevating work platform is shut down in accordance with procedures
 - 5.8 Routine post-operational checks are carried out in

accordance with procedures

5.9 Damage and defects are reported and recorded in accordance with procedures, and appropriate action is taken

Foundation Skills

The language, literacy, numeracy and employment skills that are essential to performance that are not explicit in the unit are listed below.

Skill	Performance feature
Employment skills to:	<ul style="list-style-type: none"> • operate a boom-type elevating work platform with a boom length of 11 metres or more in different types of workplaces transferring key principles of safe operation to different contexts • improve own performance in safely and efficiently operating a boom-type elevating work platform by incorporating learnings from different workplaces and different conditions into current performance
Numeracy skills to:	<ul style="list-style-type: none"> • interpret numerical information including: <ul style="list-style-type: none"> • selecting appropriate boom-type elevating work platform in accordance with load and workplace conditions • load weight assessment, to ensure compliance with boom-type elevating work platform data plate specifications • controlling and monitoring instrument readings
Language skills to:	<ul style="list-style-type: none"> • use and interpret vocabulary specific to boom-type elevating work platform operations and workplace procedures to communicate with other workplace personnel • use non-verbal feedback to support effective communication • use relevant two-way radio conventions
Literacy (reading) skills to:	<ul style="list-style-type: none"> • interpret documentation that includes technical specificity including: <ul style="list-style-type: none"> • boom-type elevating work platform data plate • plant operation manuals and manufacturer specifications • workplace procedures, including emergency plan • workplace signage and labels
Literacy (writing) skills to:	<ul style="list-style-type: none"> • accurately record and maintain information relating to operating a boom-type elevating work platform including: <ul style="list-style-type: none"> • incident reports • vehicle checking and maintenance records
Self-management	<ul style="list-style-type: none"> • implement risk control measures • initiate emergency management strategies

Skill	Performance feature
skills to:	

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit is equivalent to TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more).

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLILIC2005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more)

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

A person who demonstrates competency in this unit must provide evidence of safely operating a boom type elevating work platform with a boom lengths of 11 metres or more and satisfy all of the elements, performance criteria and foundation skills requirements of the unit on at least one occasion including:

- applying appropriate mathematical procedures to estimate loads
- applying best operating practice including:
 - avoiding ground depressions
 - gently accelerating and braking
 - minimum speed
 - minimum boom/jib length
- applying emergency procedures and safety equipment, including the use of safety harnesses, energy absorbers, lanyard and anchor points
- applying hazard prevention/control measures including:
 - disconnected power
 - illumination requirements
 - insulated electric lines
 - moving obstructions
 - pedestrian controls
 - personal protective equipment
 - safety tags on electrical switches/isolators
 - using safety observer inside exclusion zone
 - suitable area for set-up
 - suitable firm and stable standing
 - traffic barricades and controls
 - trench covers
- applying relevant plant movements including:
 - articulating
 - hinging

- lowering boom
- raising boom
- slewing
- telescoping
- applying risk assessment and hazard control strategies, including hierarchy of control as applied to positioning and safely operating an elevating work platform
- assessing ground conditions to confirm site is suitable (e.g. firm, level and safe) to extend and travel the elevating work platform
- communicating with other workplace personnel through:
 - appropriate worksite protocols
 - bells
 - buzzers
 - listening
 - making and interpreting hand signals
 - questioning to confirm understanding
 - signage
 - two way radios
 - verbal and non-verbal language
 - written instructions
- complying with WHS/OHS licensing legislation
- identifying problems and equipment faults and where practicable demonstrating appropriate response procedures
- operating and controlling a boom type elevating work platform including all functions to their maximum extension within the safe working (rated) capacity including:
 - a telescoping device
 - articulated device
 - hinged device
 - or any combination of the above used to support a platform on which personnel, equipment and materials may be elevated to perform work
- positioning, stabilising, set up of elevating work platforms, including the use of outriggers/stabilisers and packing to ensure that the safest lift is performed
- receiving and interpreting workplace instructions, safety information, emergency procedures
- recording and maintaining accurate information relating to operating elevating work platform
- shutting down a boom type elevating work platform in accordance with manufacturer specifications and workplace procedures including:
 - idling engine to stabilise temperature
 - folding boom/jib into the transport position
 - removing key from ignition
 - retracting boom/jib

- retracting outriggers/stabilisers
- turning off engine
- stabilising a boom type elevating work platform by:
 - correctly positioning plates or packing
 - deploying outriggers
 - establishing correct size plates or packing
- using and interpreting manufacturer specifications and data
- using communications signals including:
 - luff boom down – hand
 - luff boom down – whistle and/or two-way radio
 - luff boom up – hand
 - luff boom up – whistle and/two-way radio
 - stop –hand
 - stop – whistle and/or two-way radio
 - telescope out – hand
 - telescope out – whistle and/or two-way radio
 - telescope in – hand
 - telescope in – whistle and/or two-way radio
- using outriggers/stabilisers and packing to ensure safest lift is performed
- verifying problems and equipment faults and applying appropriate response procedures to unplanned and/or unsafe situations including:
 - contact with overhead electrical conductors
 - damage caused by contact with obstructions
 - environmental conditions (e.g. wind, lightning, storms, etc.)
 - failure of controls
 - illness of personnel
 - loss of power.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- appropriate mathematical procedures for estimating loads to ensure elevating work platform is not overloaded
- Australian and industry standards relevant to operating a boom-type elevating work platform (boom length 11 metres or more)
- boom length capability including:

- nominal reach, measured horizontally from centre point of rotation to outer edge of platform in its most extended position
- vertical distance from floor of platform to surface supporting elevating work platform with platform at its maximum height
- Commonwealth, state or territory WHS/OHS legislation, standards and codes of practice relevant to the full range of processes for the crane class
- ground stability including:
 - backfilled ground
 - bitumen
 - concrete
 - hard compacted soil
 - rock
 - rough uneven ground
 - soft soils
- elevating work platform characteristics, operations and operating techniques
- emergency procedures and safety equipment, including the use of safety harness, energy absorber, lanyard and anchor points
- hazards including:
 - environmental conditions (e.g. wind, lightning, storms, etc.)
 - ground stability (e.g. ground condition, recently filled trenches, slopes)
 - insufficient lighting
 - other specific hazards (e.g. tidal areas, chainsaws, pressure washers, dangerous materials)
 - overhead hazards (e.g. electric lines, service pipes, trees, buildings etc.)
 - traffic (e.g. pedestrians, vehicles, plant)
- hierarchy of hazard identification and control:
 - elimination
 - substitution
 - isolation
 - engineering controls
 - administrative controls
 - personal protective equipment (PPE)
- procedures for recording, reporting and maintaining workplace records and information, including using the service logbook
- organisational and workplace standards, requirements, policies and procedures for conducting elevating work platform operations
- rated capacity and working load limits
- risks associated with overhead electric lines/electrical cables, ground conditions, wind, pedestrians and tipping
- systematic process of eliminating or reducing risk to personnel and property through the application of controls
- typical routine problems encountered in the process and with equipment, and adjustments

required for correction.

Assessment Conditions

Assessments must be conducted by an assessor accredited for this high risk work (HRW) licence class in the Commonwealth/state/territory where the licence will be obtained (i.e. an assessor authorised by a Commonwealth/state/territory WHS/OHS regulator).

As a minimum, assessors must satisfy applicable regulatory requirements, which may include requirements in the Standards for *Registered Training Organisations* current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and all assessment must be conducted in the English language.

Assessment of performance must be undertaken in the workplace and/or under realistic workplace conditions which typically reflect:

- performing tasks/activities within timelines that would be expected in a workplace
- standard and authorised work practices, safety requirements and environmental constraints
- using full-scale equipment

Boom-type elevating work platform (boom length 11 metres or more) operation assessment must be conducted in a working zone in accordance with state/territory arrangements.

If the working zone is located at a 'live' site, assessment should continue in all weather conditions unless the safety of the candidate or others could be compromised.

Simulators must **not** be used in the assessment of this unit of competency.

Accredited assessors are responsible for ensuring candidates have access to:

- appropriate boom-type elevating work platform (boom length 11 metres or more) and associated equipment in safe condition
- appropriate safety equipment and devices including:
 - anchor points
 - audible and visual reversing devices
 - energy absorber
 - horns/sirens
 - lanyard
 - lights as required
 - operator restraint devices (platform gate)

- safety harness
- communications equipment including:
 - mobile phone
 - two-way radios
- required personal protective equipment (PPE) for the purpose of the Performance Assessment
- where appropriate, relevant workplace procedures and standards for operating a boom-type elevating work platform including:
 - approved codes of practice and guidance
 - Australian Standards
 - checklists
 - industry operating procedures
 - relevant industry standards (where applicable)
 - manufacturer guidelines (instructions, specifications or checklists) for the purpose of the Performance Assessment
 - safe work method statement (SWMS), as required
 - service logbooks/logbooks
 - signage and labels
 - history record system where service and maintenance history is kept.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLIR4002 Source goods/services and evaluate contractors

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to source goods/services and to evaluate contractors in accordance with workplace policy and procedures.

The unit generally applies to those with responsibility for resource coordination and allocation and who lead individuals or teams.

It includes analysing supply requirements as well as evaluating and selecting appropriate potential contractors.

This unit involves discretion and judgement for self and others in planning and using resources, services and processes to achieve required outcomes.

Work is performed under general guidance on progress and work outcomes.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

R – Contract Procurement

Unit Sector

Not applicable.

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Analyse supply requirements

- 1.1 Purpose and specifications of required goods/services are identified
- 1.2 Criteria to evaluate potential or existing contractor performance is established
- 1.3 Quantities of required goods/services are determined
- 1.4 Frequency of ordering/requesting of goods/services is identified

2 Evaluate potential contractors

- 2.1 Contractors of requested goods/materials/services are identified
- 2.2 Comparative costings for goods/materials/services are obtained
- 2.3 Contractor ability to provide a consistent level of performance on repeat jobs is assessed
- 2.4 Contractors are evaluated in relation to established criteria and in accordance with workplace and regulatory procedures
- 2.5 Prioritised contractor shortlist is established based on contractor capacity to provide a cost competitive quality service
- 2.6 Contractor selection process outcomes are documented including recommendations for actioning agreements/contracts with selected contractors
- 2.7 Information and data generated during selection process is filed and maintained in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLIR4002A Source goods/services and evaluate contractors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIR4002 Source goods/services and evaluate contractors

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- communicating and negotiating effectively with others
- completing relevant documentation
- determining supply requirements
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring and prioritising work activities in terms of planned schedule
- operating electronic communications equipment to required protocol
- reading, interpreting and following relevant instructions, procedures and signs
- selecting and appropriately applying technology, information systems and procedures to workplace tasks
- sourcing appropriate personnel to supply goods/services in accordance with workplace requirements
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- operational recording, reporting and statistical analysis systems and resources
- relevant chain of responsibility legislation, regulation and codes of practice requirements
- resource availability including processing capacity of equipment and software systems for data statistical analysis
- typical problems that can occur when sourcing goods and services and evaluating contractors, and related appropriate action that can be taken

- workplace business policies and plans as they relate to supply contracts, including procedures for maintaining confidentiality
- workplace grievance and disputation handling policies and procedures
- workplace policies, procedures and protocols for sourcing and supplying goods/services, and evaluating potential supply contractors.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

TLIR4003 Negotiate a contract

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to contract transport and logistics services in compliance with relevant regulations, standards, legal requirements, codes of practice and workplace procedures.

It includes negotiating the contract, finalising the contract negotiations, as well as completing all contract requirements with a contractor.

The unit generally applies to those with responsibility for resource coordination and allocation, and who lead individuals or teams.

Work is under general guidance on progress and outcomes. It requires discretion and judgement for self and others in planning and using resources, services and processes to achieve required outcomes.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

R – Contract Procurement

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to

essential outcomes.

demonstrate achievement of the element.

1 Negotiate contract specifics with contractor

1.1 Requirements of the contract are clearly documented and agreed to by the relevant parties

1.2 Areas of ambiguity or concern are clarified and resolved

1.3 Negotiations are undertaken with selected contractor for the contracting of required goods/services on a 'without prejudice' basis

1.4 Conditions for service and/or supply of goods/services are agreed between the enterprise and the contractor including the determination of key performance indicators

1.5 Alternative contractors are negotiated with if agreement is unable to be reached with preferred contractor

1.6 Contract negotiations are conducted in accordance with established workplace requirements and relevant legislation

2 Complete contract negotiations

2.1 Contract documentation is drafted in accordance with relevant legislation, workplace procedures and negotiated conditions of service and supply

2.2 Technical support in drafting contracts is accessed as required

2.3 Contract documentation is signed and exchanged between relevant parties

3 Complete enterprise contract requirements

3.1 Documentation systems are established to ensure traceability of orders and financial transactions

3.2 Workplace systems that require interaction with contractors are identified and actioned

3.3 Quality assurance procedures for supplied goods/services are initiated

3.4 Contract and ancillary documentation is completed and stored as required, in accordance with workplace procedures and regulatory requirements

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLIR4003A Negotiate a contract.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIR4003 Negotiate a contract

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate risks that may exist when negotiating a contract
- applying relevant legislation and workplace procedures
- communicating and working effectively with others when negotiating a contract
- completing documentation related to negotiating a contract
- modifying activities to cater for variations in workplace contexts and environment
- operating electronic communications equipment to required protocol
- planning and monitoring work activities in terms of schedule
- prioritising work and coordinating self and others in relation to workplace activities
- providing leadership and working collaboratively with others when negotiating a contract
- reading, interpreting and following instructions, procedures and regulatory requirements relevant to negotiating a contract
- selecting and applying appropriate technology and information systems.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and the range of conditions on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate risks that may exist when negotiating a contract
- applying relevant legislation and workplace procedures
- communicating and working effectively with others when negotiating a contract
- completing documentation related to negotiating a contract
- modifying activities to cater for variations in workplace contexts and environment
- operating electronic communications equipment to required protocol
- planning and monitoring work activities in terms of schedule
- prioritising work and coordinating self and others in relation to workplace activities
- providing leadership and working collaboratively with others when negotiating a contract
- reading, interpreting and following instructions, procedures and regulatory requirements relevant to negotiating a contract
- selecting and applying appropriate technology and information systems.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.
-

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

UETDREL14A Working safely near live electrical apparatus as a non-electrical worker

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

1) Scope:

1.1) Descriptor

This Competency Standard Unit covers compliance with working safely up to the defined “safe approach distance” near energised electrical apparatus (inc. electrical powerlines) for non-electrical workers. It includes work functions that may be performed, such as vegetation control, scaffolding, rigging, painting, and/or any other activity that requires working safely and complying with requirements and/or established procedures near live electrical apparatus by a non-electrical worker. Also included is the preparation of risk assessment control measures that encompass job safety assessment. It does not include any work that is or may be performed by other competent operatives within the defined “safe working zone”. The defined “safe working zone” is that so defined by relevant State or Territory regulatory agencies/bodies, local government legislation, Industry bi-partite body – Guidelines/Codes of Practices or other related requirements for Safe work and access near live Electrical and Mechanical Apparatus.

Application of the Unit

Application of the Unit 2)

This competency standards unit shall apply to Transmission, Distribution, Rail Traction, Telecommunications and Vegetation Management Control industry sectors.

Licensing/Regulatory Information

License to practice 3)

The skills and knowledge described in this unit may require a licence/registration to practice in the work place subject to regulations for undertaking of electrical work. Practice in workplace and during training is also subject to regulations directly related to Occupational Health and Safety, electricity/telecommunications/gas/water industry safety and compliance, industrial relations, environmental protection, anti discrimination and training. Commonwealth, State/Territory or Local Government legislation and regulations may exist that limits the age of operating certain equipment.

Pre-Requisites

Prerequisite Unit(s) 4)

Competencies 4.1)

Granting of competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed.

Where pre-requisite pathways have been identified. All competencies in the Common Unit Group must be have been completed plus all the competencies in one (1) of the identified Pathway Unit Group(s):

There are no prerequisite competencies to this unit.

Literacy and numeracy skills 4.2)

Participants are best equipped to achieve this unit if they have reading, writing and numeracy skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 "Literacy and Numeracy".

Reading 3 Writing 3 Numeracy 3

Employability Skills Information

Employability Skills 5)

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.

Elements and Performance Criteria Pre-Content

6) Elements describe the essential outcomes of a competency standard unit
Performance Criteria describe the required performance needed to demonstrate achievement of the element.
Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1 Prepare to work safely near live electrical apparatus as non-electrical worker	1.1	Instructions related to the work to be performed safely near live electrical apparatus as non-electrical worker are received and confirmed.
	1.2	Relevant requirements and established procedures to be followed and, relevant personnel to be communicated with for the work to be performed are identified.
	1.3	OHS policies and procedures to be followed for the work to be performed are received and confirmed.
	1.4	Suggestions to assist in meeting the safety requirements for working near live electrical apparatus as a non-electrical worker are made to others involved in the work.
	1.5	Hazards are identified, OHS risks assessed and control measures are prioritised, implemented and monitored including emergency exits kept

ELEMENT

PERFORMANCE CRITERIA

- clear according to established procedures.
- 1.6 Scope of responsibility and process of relevant work permit(s) issue is identified, received and confirmed according to requirements and established procedures.
- 1.7 Relevant responsibility associated with First Aid, Safety Observers and/or other related work safety procedures at the worksite are identified in accordance with requirements and established procedures to ensure safety measures are followed in the instance of an incident.
- 1.8 Processes for identifying and reporting client issues to appropriate personnel in accordance with industry/acceptable /community standards are identified.
- 1.9 Site and the work schedule to be prepared are confirmed according to given instructions for a quality outcome and to minimise risk and damage to property, commerce, stock and individuals in accordance and established procedures.
- 1.10 Electricity infrastructure assets, related voltages and requirements for working safely near live electrical apparatus as non-electrical worker are identified.
- 1.11 Safe approach distances including any zones thereof that may apply, as defined in industry guidelines, requirements and/or established procedures for the intended work are confirmed.
- 2 Carry out the work safely near live electrical apparatus as non-electrical worker.
- 2.1 OHS principles and practices to reduce the incidents of accidents are identified in accordance with given instructions, requirements and/or established procedures.
- 2.2 Working safely and complying with all safety requirements for working near live electrical apparatus as a non-electrical worker are followed in accordance with given instructions and

ELEMENT	PERFORMANCE CRITERIA
	established routines/procedures.
	2.3 Processes for monitoring and reporting/referring hazards and OHS risks to the immediate authorised personnel for directions according to established procedures are followed.
	2.4 Non-routine events are referred to the immediate authorised personnel for directions according to established procedures.
	2.5 Unexpected events associated with working safely near live electrical apparatus as a non-electrical worker are responded to using acquired known solutions and skills related to routine procedures to ensure work instructions and established procedures are met.
3 Complete the work safely near live electrical apparatus as non-electrical worker.	3.1 Work schedule and anomalies for completion and checking of the work are reported to authorised personnel in accordance with established procedures.
	3.2 Processes for reporting to authorised personnel accidents and/or incidents are confirmed in accordance with established procedures.
	3.3 Requirements for returning work permit(s) and/or access authorisation permits are confirmed.
	3.4 Appropriate personnel are notified of work completion according to established procedures.
	3.5 Works completion records, report forms/data sheets are completed accurately in accordance with given instructions and established procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

8) Essential Knowledge and Associated Skills (EKAS): This describes the essential

REQUIRED SKILLS AND KNOWLEDGE

skills and knowledge and their level, required for this unit.

Evidence shall show that knowledge has been acquired of working safely near live electrical apparatus as non electrical worker.

All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

KS01-TEL14A Power Line Safety – Non Electrical Workers

Evidence shall show an understanding of power line safety – non electrical workers to an extent indicated by the following aspects:

T1 Basic electrical principles encompassing:

- Fundamental units - basic measurement of units
- Electrical characteristics of material: characteristics of solid materials, insulators; terms electrical charge, electrical current, electromagnetic forces
- Nature of electrical current and change - basic rules of electrical current flow
- Sources of Electricity: basic fundamentals of alternating current, direct current and single EMF source (induction)
- A simple circuit - circuit protection devices used on the network, effects of an open circuit, a closed circuit and a short circuit and earthing – using the ground as a form of conductor to return current back to a source
- Resistance - relationship between voltage and current and resistance (Ohms Law)
- Effects of current - physiological effects and protection for physiological effects; basic principle by which electrical current can result in the production of heat, light and electromagnetic fields and typical effects of current.
- Three phase and single phase power systems: star delta configurations, three phase star connections, relationship between line and phase voltages, three phase 4 wire systems - purpose of the neutral
- Consequences of short circuits - arc flash, ESI Protection schemes
- Magnetism - magnetic field patterns, concepts of electromagnetism, effects of electromagnetism and magnetic fields around straight conductors
- Hazards encountered in an ESI environment - touch and step potentials, electric shock, fire, chemicals, falls, safe use of tools and equipment.

T2 Transmission, distribution and rail power systems encompassing:

- Relationship between the transmission, distribution and rail/tram system within an overall power system - different organisations responsible for generation, transmission, distribution and rail/tram and, how they correlate and their functions
- Characteristics of a transmission, a distribution and a rail system - principal components, typical voltage levels and methods of transmission and distribution including grid type transmission systems, radial, parallel and ring main feeders
- Relationship between an overhead and underground supply systems within an overall power system - advantages/disadvantages, applications.
- Single line drawings and layouts - drawings and layouts of transmission and distribution systems including, radial, parallel and ring main feeders and the HV

REQUIRED SKILLS AND KNOWLEDGE

equipment associated with substations

T3 Fundamentals for working safely near live electrical apparatus for non-electrical worker encompassing:

- Standards, guidelines/codes of practice, State/Territory/local government legislation, supply authority regulations and or enterprise requirements including relevant certification and licensing, applicable to working safely up to the defined “safe working zone” near energised electrical apparatus (inc. electrical powerlines) for non-electrical worker
- Definitions of terminologies - ‘safe working zone’, ‘risk assessment’, ‘safe approach distances zones’, ‘safe working distances’, ‘work permits’, ‘access authorisation permits’, ‘Technical standards’, ‘isolation procedures’ and ‘compliance requirements’
- OHS policies and procedures for working safely - duties of a safety observer, permit to work systems and isolation procedures, safe application of different types of tools and equipment and operation of mobile plant and machinery (e.g. EWP) near live electrical apparatus
- Techniques and precautions in undertaking different work functions and working safely up to the defined “safe working zone” near energised electrical apparatus (inc. electrical powerlines) for non-electrical worker (work functions that may be performed include, vegetation control, scaffolding, rigging, painting, and/or any other activity that requires working safely near live electrical apparatus by a non-electrical worker)

Evidence Guide

EVIDENCE GUIDE

9) This provides essential advice for assessment of the competency standard unit and must be read in conjunction with the Performance Criteria and the range statement of the competency standard unit and the Training Package Assessment Guidelines.

The Evidence Guide forms an integral part of this Competency Standard Unit and shall be used in conjunction with all component parts of this unit and, performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment 9.1)

Longitudinal competency development approaches to assessment, such as Profiling, require data to be reliably gathered in a form that can be consistently interpreted over time. This approach is best utilised in Apprenticeship programs and reduces assessment

intervention. It is the Industry's preferred model for apprenticeships. However, where summative (or final) assessment is used it is to include the application of the competency in the normal work environment or, at a minimum, the application of the competency in a realistically simulated work environment. It is recognised that, in some circumstances, assessment in part or full can occur outside the workplace. However, it must be in accord with Industry and, Regulatory policy in this regard.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Hence, sources of evidence need to be 'rich' in nature so as to minimise error in judgment.

Activities associated with normal every day work have a bearing on the decision as to how much and how detailed the data gathered will contribute to its 'richness'. Some skills are more critical to safety and operational requirements while the same skills may be more or less frequently practiced. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments. Sample assessment instruments are included for Assessors in the Assessment Guidelines of this Training Package.

Critical aspects of evidence required to demonstrate competency in this unit 9.2)

Before the critical aspects of evidence are considered all prerequisites shall be met.

Evidence for competence in this unit shall be considered holistically. Each element and associated Performance Criteria shall be demonstrated on at least two occasions in accordance with the "Assessment Guidelines – UET12". Evidence shall also comprise:

- A representative body of Performance Criteria demonstrated within the timeframes typically expected of the discipline,

work function and industrial environment. In particular this shall incorporate evidence that shows a candidate is able to:

- Implement Occupational Health and Safety workplace procedures and practices including the use of risk control measures as specified in the Performance Criteria and range; and
- Apply sustainable energy principles and practices as specified in the Performance Criteria and range; and
- Demonstrate an understanding of the essential knowledge and associated skills as described in this unit to such an extent that the learner's performance outcome is reported in accordance with the preferred approach; namely a percentile graded result, where required by the regulated environment; and
- Demonstrate an appropriate level of employability skills; and
- Conduct work observing the relevant Anti Discrimination legislation, regulations, policies and workplace procedures; and
- Demonstrated performance across a representative range of contexts from the prescribed items below:

Range of tools/equipment/materials/procedures/workplaces/other variables		
Group No	The minimum number of items on which skill is to be demonstrated	Item List
A	All of the following:	Confirmation of the "safe working zone" for Safe work and access near live Electrical Apparatus Identification of the relevant technical standards. Acts, regulations and codes/guidelines Identification of established (Enterprise) procedures
B	All of the following:	Confirmation of the principles of electricity,

		<p>the three phase power system, electric shock and resuscitation, power system</p> <p>Recognition of aerial voltage systems</p> <p>Identification of Low Voltage Aerial Circuits</p> <p>Identification of High Voltage</p>
C	All of the following:	<p>Procedures in the event of an incident</p> <p>Events constituting an incident</p> <p>Procedures for responding to incidents</p> <p>Hazard and risk assessment procedure</p> <p>Conduct Work-site Hazard Assessment</p> <p>Confirmation of essential components of Hazard Assessment Checks</p> <p>Applying Hazard Identification in Electrical Work</p> <p>Confirmation of the Basic Safety Principles for Work on Electrical works</p> <p>Hazard Identification and Risk Assessment</p> <p>Hazard Control</p> <p>Risk Assessment and Management (JSAs) Control</p> <p>The Hierarchy of Controls including Evaluation, Worksite Hazard and Risk</p>

		Assessment Checklist, Pre-job Hazard Assessment Check (HAC) Items, Planned Inspection and Pre-Work Hazard Risk Assessment Form
D	All of the following:	Use of work permits and/or authorisation permits Sustainable energy principles and practices Possible affects of weather conditions on working near electrical apparatus as a non-electrical worker
E	At least one occasion	Dealing with an unplanned event by drawing on essential knowledge and associated skills to provide appropriate solutions incorporated in the holistic assessment with the above listed items.

Context of and specific resources for assessment 9.3)

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace. This should include:

- OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and materials to safely undertake actual work near live electrical apparatus

In addition to the resources listed above, in context of and specific resources for assessment, evidence should show demonstrated

competency working below ground, in limited spaces, with different structural/construction types and method and in a variety of environments.

Method of assessment **9.4)**

This Competency Standard Unit shall be assessed by methods given in Volume 1, Part 3 “Assessment Guidelines”.

Note:

Competent performance with inherent safe working practices is expected in the Industry to which this Competency Standard Unit applies. This requires that the specified essential knowledge and associated skills are assessed in a structured environment which is primarily intended for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and associated skills described in this unit.

Concurrent assessment and relationship with other units **9.5)**

For optimisation of training and assessment effort, competence in this unit is not recommended to be assessed concurrently with any other unit.

Range Statement

RANGE STATEMENT

10) This relates to the competency standard unit as a whole providing the range of contexts and conditions to which the Performance Criteria apply. It allows for different work environments and situations that will affect performance.

This Competency Standard Unit shall be demonstrated in relation to safe working so defined by relevant State or Territory regulatory agencies/bodies, local government legislation, Industry bi-partite body – Guidelines/Codes of Practices or other related requirements for Safe work and access near live Electrical Apparatus.

Work functions that may be performed, such as vegetation control, operation of cranes, elevating work platforms, excavators, concrete pumps etc, scaffolding,

RANGE STATEMENT

rigging, painting, and/or any other activity that requires working safely and complying with requirements and/or established procedures near live electrical apparatus by a non-electrical worker/

Working safely up to the defined “safe working zone” near energised electrical apparatus (inc. electrical powerlines) for non-electrical worker including an understanding of risk assessment control measures that encompass job safety assessment but excluding any work that is or may be performed by other competent operatives within the defined “safe working zone”.

Safe use of plant, equipment and tools within electrical environments including but not limited by the electricity supply infrastructure assets, infrastructure constructions and excavations including an understanding of safe approach distances zones/Safe Working Clearance, work permit(s) and/or access authorisation permits, technical standards and Industry Guidelines, rural applications, road construction, pavements and effect of inclement weather

The following constants and variables included in the element/Performance Criteria in this unit are fully described in the Definitions Section 1 of this volume and form an integral part of the Range Statement of this unit:

- Appropriate and relevant persons
- Appropriate authorities
- Assessing risk
- Authorisation
- Drawings and specifications
- Emergency
- Established procedures
- Hazards
- Identifying hazards
- Legislation
- Notification
- OHS practices
- OHS issues
- Permits and/or permits to work
- Work clearance systems

Unit Sector(s)

Not applicable.

Competency Field

Competency Field 11)

Entry Level – Cross Discipline Units.

UETIDRRF03B Perform EWP rescue

Modification History

Release	Action		Details	Points
	Update	Pre-requisite	HLTAID001 Provide cardiopulmonary resuscitation	

Unit Descriptor

Unit Descriptor

1) Scope:

1.1) Descriptor

This Competency Standard Unit covers the performance of rescue procedures from an Elevating Work Platform (EWP) in the work place. It specifies the mandatory requirements of rescue from a raised EWP by a work party member on the ground and how they apply in the context of transmission, distribution or rail work functions. It encompasses responsibilities for, health, safety and risk management processes at all operative levels and adherence to safety practices as part of the normal way of doing work.

Application of the Unit

Application of the Unit 2)

This competency standard unit shall be selected as part of an endorsed skill set for the purposes of refresher training and/or to meet regulatory and/or network requirements.

Delivery and assessment of this unit should be undertaken within regard to the requirements of License to Practice (1.2 above), Prerequisite Competencies and Literacy and Numeracy skills (2 above) and the recommendations for concurrent assessment and relationship with other units (9.5 below).

Practice in the workplace and during training is also subject to regulations directly related to occupational health and safety and where applicable contracts of training such as apprenticeships.

Note:

1. Compliance with permits may be required in various jurisdictions and typically relates to the operation of plant, machinery and equipment such as elevating work platforms, powder operated fixing tools, power operated tools, vehicles, road signage and traffic control and lifting equipment. Permits may also be required for some work environments such as confined spaces, working aloft, near live electrical apparatus and site rehabilitation.
2. Compliance may be required in various jurisdictions relating to currency in First Aid, confined space, lifting, risk safety measures etc.

Licensing/Regulatory Information

License to practice 3)

The skills and knowledge described in this unit may require a licence/registration to practice in the work place subject to regulations for undertaking of electrical work. Practice in workplace and during training is also subject to regulations directly related to Occupational Health and Safety, electricity/telecommunications/gas/water industry safety and compliance, environmental protection, anti discrimination and training. Commonwealth, State/Territory or Local Government legislation and regulations may exist that limits the age of operating certain equipment.

ESI employees are required to maintain currency in this Unit for authorisation/approval to work on ESI Networks.

Pre-Requisites

Prerequisite Unit(s) 4)

Competencies 4.1)

Prerequisite Unit(s) 4)

Granting of competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed.

Where pre-requisite pathways have been identified. All competencies in the Common Unit Group must be have been completed.

Common Unit Group

Unit Code	Unit Title
HLTAID001	Provide cardiopulmonary resuscitation

Literacy and numeracy skills 4.2)

Participants are best equipped to achieve this unit if they have reading, writing and numeracy skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 ‘Literacy and Numeracy’

Reading	3	Writing	3	Numeracy	3
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Employability Skills Information**Employability Skills 5)**

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

6) Elements describe the essential outcomes of a competency standard unit

Performance Criteria describe the required performance needed to demonstrate achievement of the element.
Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare to perform EWP rescue procedures	1.1 Instruction in hazards and risk control measures for specific work areas and work activities are identified and obtained. (This will include the risk assessment and control measures taken by the individual performing the rescue).
	1.2 Tools and emergency equipment are checked for safety, functionality and placed in an accessible location to facilitate response and rescue according to established procedures.
2 Carry out EWP rescue procedure.	2.1 Workplace procedures and work instructions for controlling risk are followed.
	2.2 Workplace procedures for removing the victim, where necessary, from contact with or in vicinity of live apparatus and lowering the EWP to the ground are followed.
	2.3 Workplace procedures for removing the victim from the EWP are followed.
	2.4 Workplace procedures for carrying out CPR if required at the site and treatment where necessary by medical professionals are followed.
	2.5 The worksite is secured and entry controlled until appropriate authorities inspect and release the site.
3 Complete the EWP rescue procedure	3.1 Processes for reporting accidents and/or incidents to authorised personnel are confirmed in accordance with established procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

8) Essential Knowledge and Associated Skills (EKAS): This describes the essential skills and knowledge and their level, required for this unit.

Evidence shall show that knowledge has been acquired of performing EWP rescue procedure.

REQUIRED SKILLS AND KNOWLEDGE

All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

KS01-TRF03B EWP Rescue

Evidence shall show an understanding of EWP rescue to an extent indicated by the following aspects:

T1 Emergency procedures for the EWP rescue of a victim encompassing:

- Inspection of rescue equipment
- Assessing hazards to rescuer, victim and others
- Isolation procedures where appropriate
- Knowledge of Safe Approach Distances (SAD's) appropriate to EWP Rescue
- Involvement of external emergency services
- Emergency retrieval systems

T2 Emergency procedures for the skills required to undertake EWP rescue of a victim encompassing:

- Placement of rescue equipment
- Controlling hazards to rescuer, victim and others
- Maintaining Safe Approach Distances (SAD's) appropriate to EWP Rescue
- Practical demonstration of rescuing a person
- Removing victim to safe location / place of safety

Evidence Guide

EVIDENCE GUIDE

9) This provides essential advice for assessment of the competency standard unit and must be read in conjunction with the Performance Criteria and the range statement of the competency standard unit and the Training Package Assessment Guidelines.

The Evidence Guide forms an integral part of this Competency Standard Unit and shall be used in conjunction with all component parts of this unit and, performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment 9.1)

In accordance with the National Refresher Training Recognition Protocol for the Electricity Supply Industry, this unit is identified as a Refresher Training unit and is only available for use by industry to meet industry protocols and regulatory requirements.

Industry has defined Refresher Training as:

“A competency confirmation event which may include training, the purpose of which is to compensate for or prevent deterioration in a previously achieved standard of performance”

Under the protocol and the applicable State or Territory legislative and regulatory requirements, Electricity Supply Industry employees are required to maintain currency in this Unit for authorisation/approval to work on ESI Networks.

Industry accepts that opportunities to practice emergency procedures are generally restricted to simulated exercises in a controlled environment during competency confirmation programs.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Hence, sources of evidence need to be ‘rich’ in nature so as to minimise error in judgment.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments.

An industry endorsed Learning Assessment Plan (LAP) has been developed to support this unit.

**Critical aspects
of evidence
required to
demonstrate
competency in
this unit** 9.2)

Before the critical aspects of evidence are considered all prerequisites shall be met.

Evidence for competence in this unit shall be considered holistically. Each element and associated Performance Criteria shall be demonstrated at each competency confirmation event.

- In accordance with State and Territory regulations and the “Assessment Guidelines – UET12”. Evidence shall also

comprise:

- Performance demonstrated within the timeframes typically expected of the rescue procedure. In particular the assessment of this unit shall confirm that a candidate is able to:
- Implement Occupational Health and Safety workplace procedures and practices including the use of risk control measures as specified in the Performance Criteria and range; and
- Demonstrate an understanding of the essential knowledge and associated skills as described in this unit to such an extent that the learner’s performance outcome is reported in accordance with the preferred approach; namely a percentile graded result, where required by the regulated environment; and
- Demonstrate an appropriate level of employability skills; and
- Conduct work observing the relevant Anti Discrimination legislation, regulations, policies and workplace procedures; and
- Demonstrated performance across a representative range of contexts from the prescribed items below:

Range of tools/equipment/materials/procedures/workplaces/other variables		
Group No	The minimum number of items on which skill is to be demonstrated	Item List
A	All, to the satisfaction of the assessor	Identification of operational instructions and confirmation of the function of emergency equipment to facilitate rescue from an incident in an EWP
B	All, to the satisfaction of the assessor	Accessing controls and lowering the EWP in accordance with mobile equipment instructions/workplace procedures.

C	All, to the satisfaction of the assessor	Removing the victim from the EWP to the ground in accordance with workplace procedures
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Context of and specific resources for assessment 9.3)

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace. This should include:

- OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and materials to safely undertake actual performance of EWP rescue procedures in the workplace.

In addition to the resources listed above, in Context of and specific resources for assessment, evidence should show demonstrated competency working in realistic environment and a variety of conditions.

Method of assessment 9.4)

This Competency Standard Unit shall be assessed by methods given in Volume 1, Part 3 “Assessment Guidelines”.

Note:

Competent performance with inherent safe working practices is expected in the Industry to which this Competency Standard Unit applies. This requires that the specified essential knowledge and associated skills are assessed in a structured environment which is primarily intended for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and associated skills described in this unit.

Concurrent assessment and relationship with 9.5)

other units

For optimisation of training and assessment effort, competence in this unit is not recommended to be assessed concurrently with any other unit.

Range Statement

RANGE STATEMENT

10) This relates to the competency standard unit as a whole providing the range of contexts and conditions to which the Performance Criteria apply. It allows for different work environments and situations that will affect performance.

This Competency Standard Unit shall be demonstrated in relation to EWP rescue procedures in the workplace and will include the following:

Applying work procedures and instructions as they apply to risk control and personal safety measures.

Inspection and function of emergency equipment to facilitate a prompt response and rescue from a raised EWP.

Accessing emergency lowering device in accordance with mobile equipment instructions/workplace procedures.

Removing the victim from contact with or in vicinity of live apparatus where necessary in accordance with workplace procedures.

Operation of emergency lowering device in accordance with mobile equipment instructions/workplace procedures.

Lowering the basket to the ground, removing the victim from the basket and performing CPR if required, in accordance with workplace procedures.

Facilitating treatment by medical professionals when and where required

The following constants and variables included in the element/Performance Criteria in this unit are fully described in the Definitions Section 1 of this volume and form an integral part of the Range Statement of this unit:

- Appropriate and relevant persons
- Assessing risk
- Assessment
- Authorisation
- Emergency
- Established procedures
- Fall prevention
- Hazards

RANGE STATEMENT

- Identifying hazards
- Inspect
- Legislation
- Notification
- OHS practices
- OHS issues
- Permits and/or permits to work
- Personnel
- Requirements
- Testing procedures
- Work clearance systems

Unit Sector(s)

Not applicable.

Competency Field

Competency Field 11)

Refresher Training Unit.

UETTDRRF08B Perform EWP controlled descent escape

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

1) Scope:

1.1) Descriptor

This Competency Standard Unit covers the performance of Elevating Work Platform (EWP) controlled descent escape procedures in the work place. It specifies the mandatory requirements for self rescue from a raised EWP and how they apply in the context of transmission, distribution or rail work functions. It encompasses responsibilities for, health, safety and risk management processes at all operative levels and adherence to safety practices as part of the normal way of doing work.

Application of the Unit

Application of the Unit 2)

This competency standard unit shall be selected as part of an endorsed skill set for the purposes of refresher training and/or to meet regulatory and/or network requirements.

Delivery and assessment of this unit should be undertaken within regard to the requirements of License to Practice (1.2 above), Prerequisite Competencies and Literacy and Numeracy skills (2 above) and the recommendations for concurrent assessment and relationship with other units (9.5 below).

Practice in the workplace and during training is also subject to regulations directly related to occupational health and safety and where applicable contracts of training such as apprenticeships.

Note:

1. Compliance with permits may be required in various jurisdictions and typically relates to the operation of

plant, machinery and equipment such as elevating work platforms, powder operated fixing tools, power operated tools, vehicles, road signage and traffic control and lifting equipment. Permits may also be required for some work environments such as confined spaces, working aloft, near live electrical apparatus and site rehabilitation.

2. Compliance may be required in various jurisdictions relating to currency in First Aid, confined space, lifting, risk safety measures etc

Licensing/Regulatory Information

License to practice 3)

The skills and knowledge described in this unit may require a licence/registration to practice in the work place subject to regulations for undertaking of electrical work. Practice in workplace and during training is also subject to regulations directly related to Occupational Health and Safety, electricity/telecommunications/gas/water industry safety and compliance, environmental protection, anti discrimination and training. Commonwealth, State/Territory or Local Government legislation and regulations may exist that limits the age of operating certain equipment.

ESI employees are required to maintain currency in this Unit for authorisation/approval to work on ESI Networks.

Pre-Requisites

Prerequisite Unit(s) 4)

Competencies 4.1)

Granting of competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed.

Where pre-requisite pathways have been identified. All competencies in the Common Unit Group must have been completed plus all the competencies in one (1) of the identified Pathway Unit Group(s):

Prerequisite Unit(s) 4)

There are no prerequisite competencies to this unit.

Literacy and numeracy skills 4.2)

Participants are best equipped to achieve this unit if they have reading, writing and numeracy skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 “Literacy and Numeracy”

Reading 3 Writing 3 Numeracy 3

Employability Skills Information**Employability Skills 5)**

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

6) Elements describe the essential outcomes of a competency standard unit Performance Criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria**ELEMENT****PERFORMANCE CRITERIA**

1 Prepare to perform EWP controlled descent escape	1.1	Instruction in hazards and risk control measures for specific work areas and work activities are identified and obtained.
	1.2	Tools and emergency descent equipment is checked for safety and function to ensure accessibility according to established procedures.

ELEMENT	PERFORMANCE CRITERIA
2 Carry out EWP controlled descent escape	2.1 Workplace procedures and work instructions for controlling risk are followed.
	2.2 Workplace procedures for evacuating a EWP basket employing emergency descent equipment are followed.
	2.3 The worksite is secured and entry controlled until appropriate authorities inspect and release the site.
3 Complete the EWP controlled descent escape procedure	3.1 Processes for reporting accidents and/or incidents to authorised personnel are confirmed in accordance with established procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

8) Essential Knowledge and Associated Skills (EKAS): This describes the essential skills and knowledge and their level, required for this unit.

Evidence shall show that knowledge has been acquired of EWP controlled descent escape procedures.

All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

KS01-TRF08B EWP Controlled descent escape

Evidence shall show an understanding of EWP controlled descent escape to an extent indicated by the following aspects:

T1 Procedures for EWP controlled descent escape encompassing:

- Inspection of rescue equipment
- Assessing hazards to self and others
- Involvement of external emergency services as appropriate
- Knowledge of Safe Approach Distances (SAD's) appropriate to EWP controlled descent escape

T2 Skills required for EWP controlled descent escape encompassing:

- Fitting of rescue equipment
- Controlling hazards to self and others
- Maintaining Safe Approach Distances (SAD's) for an EWP controlled descent escape

REQUIRED SKILLS AND KNOWLEDGE

- Practical demonstration of rescuing self
- Removing self to safe location / place of safety

Evidence Guide

EVIDENCE GUIDE

9) This provides essential advice for assessment of the competency standard unit and must be read in conjunction with the Performance Criteria and the range statement of the competency standard unit and the Training Package Assessment Guidelines.

The Evidence Guide forms an integral part of this Competency Standard Unit and shall be used in conjunction with all component parts of this unit and, performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment 9.1)

In accordance with the National Refresher Training Recognition Protocol for the Electricity Supply Industry, this unit is identified as a Refresher Training unit and is only available for use by industry to meet industry protocols and regulatory requirements.

Industry has defined Refresher Training as:

“A competency confirmation event which may include training, the purpose of which is to compensate for or prevent deterioration in a previously achieved standard of performance”

Under the protocol and the applicable State or Territory legislative and regulatory requirements, Electricity Supply Industry employees are required to maintain currency in this Unit for authorisation/approval to work on ESI Networks.

Industry accepts that opportunities to practice emergency procedures are generally restricted to simulated exercises in a controlled environment during competency confirmation programs.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Hence, sources of evidence need to be ‘rich’ in nature so as to minimise error in judgment.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the

most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments.

An industry endorsed Learning Assessment Plan (LAP) has been developed to support this unit.

Critical aspects of evidence required to demonstrate competency in this unit 9.2)

Before the critical aspects of evidence are considered all prerequisites shall be met.

Evidence for competence in this unit shall be considered holistically. Each element and associated Performance Criteria shall be demonstrated at each competency confirmation event.

- In accordance with State and Territory regulations and the “Assessment Guidelines – UET12”. Evidence shall also comprise:
 - A performance demonstrated within the timeframes typically expected of the rescue procedure. In particular the assessment of this unit shall confirm that a candidate is able to:
 - Implement Occupational Health and Safety workplace procedures and practices including the use of risk control measures as specified in the Performance Criteria and range; and
 - Demonstrate an understanding of the essential knowledge and associated skills as described in this unit to such an extent that the learner’s performance outcome is reported in accordance with the preferred approach; namely a percentile graded result, where required by the regulated environment; and
 - Demonstrate an appropriate level of employability skills; and
- Conduct work observing the relevant Anti Discrimination legislation, regulations, policies and workplace procedures; and

- Demonstrated performance across a representative range of contexts from the prescribed items below:

Range of tools/equipment/materials/procedures/workplaces/other variables		
Group No	The minimum number of items on which skill is to be demonstrated	Item List
A	All, to the satisfaction of the assessor	Accessing, inspecting, securing and attaching emergency descent equipment to self in accordance with workplace procedures
B	All, to the satisfaction of the assessor	Evacuating the EWP and descending to the ground in accordance with workplace procedures

Context of and specific resources for assessment 9.3)

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace. This should include:

- OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and materials to safely undertake actual performance of EWP controlled descent escape procedures in the workplace.

In addition to the resources listed above, in Context of and specific resources for assessment, evidence should show demonstrated competency working in a realistic environment and a variety of conditions.

Method of assessment 9.4)

This Competency Standard Unit shall be assessed by methods given in Volume 1, Part 3 “Assessment Guidelines”.

Note:

Competent performance with inherent safe working practices is expected in the Industry to which this Competency Standard Unit applies. This requires that the specified essential knowledge and associated skills are assessed in a structured environment which is primarily intended for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and associated skills described in this unit.

**Concurrent
assessment and
relationship with
other units**

9.5)

For optimisation of training and assessment effort, competence in this unit is not recommended to be assessed concurrently with any other unit.

Range Statement

RANGE STATEMENT

10) This relates to the competency standard unit as a whole providing the range of contexts and conditions to which the Performance Criteria apply. It allows for different work environments and situations that will affect performance.

This Competency Standard Unit shall be demonstrated in relation to performing EWP controlled descent escape procedures in the workplace and will include the following:

Inspection of rescue equipment to facilitate a controlled descent from a EWP.

Applying work procedures and instructions as they apply to risk control and personal safety measures.

Accessing, securing and attaching the lowering device to self in accordance with workplace procedures.

Lowering self to the ground from the raised EWP.

The following constants and variables included in the element/Performance Criteria in this unit are fully described in the Definitions Section 1 of this volume and form an integral part of the Range Statement of this unit:

RANGE STATEMENT

- Appropriate and relevant persons
- Assessing risk
- Assessment
- Authorisation
- Emergency
- Established procedures
- Fall prevention
- Hazards
- Identifying hazards
- Inspect
- Legislation
- Notification
- OHS practices
- OHS issues
- Permits and/or permits to work
- Personnel
- Requirements
- Testing procedures
- Work clearance systems

Unit Sector(s)

Not applicable.

Competency Field

Competency Field 11)

Refresher Training Unit

AHC Agriculture, Horticulture and Conservation and Land Management Training Package

Modification History

Version	Release Date	Comments
1.0	22 June 2016	Initial release Includes 97 qualifications, 878 units of competency and assessment requirements and 46 Skill Sets.

Credit Arrangements

Qualification	Credit Arrangements
AHC10115 Certificate I in Conservation and Land Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC10216 Certificate I in AgriFood Operations	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC10316 Certificate I in Horticulture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC10416 Certificate I in Permaculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC20116 Certificate II in Agriculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC20316 Certificate II in Production Horticulture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC20416 Certificate II in Horticulture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC20510 Certificate II in Arboriculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC20616 Certificate II in Parks and Gardens	At the time of endorsement of this Training Package no national credit arrangements exist.

AHC20716 Certificate II in Production Nursery	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC20816 Certificate II in Retail Nursery	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC20916 Certificate II in Sports Turf Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC21016 Certificate II in Conservation and Land Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC21116 Certificate II in Irrigation	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC21216 Certificate II in Rural Operations	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC21316 Certificate II in Shearing	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC21416 Certificate II in Wool Handling	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC21516 Certificate II in Floriculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC21616 Certificate II in Landscaping	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC21716 Certificate II in Permaculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC30116 Certificate III in Agriculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC30216 Certificate III in Agriculture (Dairy Production)	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC30416 Certificate III in Pork Production	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC30516 Certificate III in Poultry Production	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC30616 Certificate III in Production Horticulture	At the time of endorsement of this Training Package no national credit arrangements exist.

AHC30716 Certificate III in Horticulture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC30716 Certificate III in Landscape Construction	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC30816 Certificate III in Arboriculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC31016 Certificate III in Parks and Gardens	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC31116 Certificate III in Production Nursery	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC31216 Certificate III in Retail Nursery	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC31316 Certificate III in Sports Turf Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC31416 Certificate III in Conservation and Land Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC31516 Certificate III in Indigenous Land Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC31616 Certificate III in Lands, Parks and Wildlife	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC31716 Certificate III in Natural Area Restoration	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC32116 Certificate III in Commercial Seed Processing	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC32216 Certificate III in Commercial Composting	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC32316 Certificate III in Conservation Earthworks	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC32416 Certificate III in Irrigation	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC32516 Certificate III in Aboriginal Sites Work	At the time of endorsement of this Training Package no national credit arrangements exist.

AHC32616 Certificate III in Rural Machinery Operations	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC32716 Certificate III in Rural Merchandising	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC32816 Certificate III in Rural Operations	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC32916 Certificate III in Shearing	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC33016 Certificate III in Wool Clip Preparation	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC33116 Certificate III in Advanced Wool Handling	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC33216 Certificate III in Floriculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC33316 Certificate III in Feedlot Operations	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC33416 Certificate III in Seed Production	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC33516 Certificate III in Seed Testing	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC33616 Certificate III in Pest Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC33816 Certificate III in Permaculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC33916 Certificate III in Beekeeping	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC40116 Certificate IV in Agriculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC40316 Certificate IV in Production Horticulture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC40416 Certificate IV in Horticulture	At the time of endorsement of this Training Package no national credit arrangements exist.

AHC40516 Certificate IV in Parks and Gardens	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC40616 Certificate IV in Production Nursery	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC40716 Certificate IV in Retail Nursery	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC40816 Certificate IV in Sports Turf Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC40916 Certificate IV in Conservation and Land Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC41016 Certificate IV in Agribusiness	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC41116 Certificate IV in Irrigation	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC41316 Certificate IV in Wool Classing	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC41416 Certificate IV in Seed Production	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC41516 Certificate IV in Seed Testing	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC41616 Certificate IV in Organic Farming	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC41716 Certificate IV in Pest Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC41916 Certificate IV in Arboriculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC42016 Certificate IV in Landscape	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC42116 Certificate IV in Permaculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC42216 Certificate IV in Shearing Contracting	At the time of endorsement of this Training Package no national credit arrangements exist.

AHC50116 Diploma of Agriculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC50216 Diploma of Pork Production	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC50316 Diploma of Production Horticulture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC50416 Diploma of Horticulture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC50510 Diploma of Arboriculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC50616 Diploma of Landscape Design	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC50716 Diploma of Parks and Gardens Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC50816 Diploma of Production Nursery Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC50916 Diploma of Retail Nursery Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC51016 Diploma of Sports Turf Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC51116 Diploma of Conservation and Land Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC51216 Diploma of Community Coordination and Facilitation	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC51316 Diploma of Pest Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC51416 Diploma of Agribusiness Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC51516 Diploma of Viticulture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC51616 Diploma of Irrigation Management	At the time of endorsement of this Training Package no national credit arrangements exist.

AHC51816 Diploma of Organic Farming	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC52016 Diploma of Landscape Project Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC52116 Diploma of Permaculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC60210 Advanced Diploma of Horticulture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC60316 Advanced Diploma of Agribusiness Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC60416 Advanced Diploma of Conservation and Land Management	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC60516 Advanced Diploma of Arboriculture	At the time of endorsement of this Training Package no national credit arrangements exist.
AHC80116 Graduate Diploma of Arboriculture	At the time of endorsement of this Training Package no national credit arrangements exist.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

AHCSS00026 Advanced Chemical Spray Application Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release. Not equivalent to AHCSS00001 in AHC10.

Description

Pathways Information

These units provide credit towards a large number of qualifications in the AHC Training Package, including but not limited to AHC40116 Certificate IV in Agriculture and AHC40316 Certificate IV in Production Horticulture.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 6 units of competency.

Unit Code	Unit Title
AHCWRK302	Monitor weather conditions
AHCMOM315	Operate chemical application machinery and equipment
AHCCHM401	Develop procedures to minimise risks in the use of chemicals* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>
AHCCHM402	Plan and implement a chemical use program* <i>AHCCHM303 Prepare and apply chemicals</i> <i>AHCCHM304 Transport and store chemicals</i>

AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals

Target Group

Individuals responsible for planning, risk management and application tasks associated with the spray application of chemicals used in primary production.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for those responsible for planning and risk management associated with the spray application of chemicals in primary production.

AHCSS00027 Agricultural Chemical Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards the following Certificates:

- AHC20116 Certificate II in Agriculture
- AHC20316 Certificate II in Production Horticulture
- AHC20416 Certificate II in Horticulture
- AHC20516 Certificate II in Arboriculture
- AHC20616 Certificate II in Parks and Gardens
- AHC20716 Certificate II in Production Nursery
- AHC20916 Certificate II in Sports Turf Management
- AHC21016 Certificate II in Conservation and Land Management
- AHC21116 Certificate II in Irrigation
- AHC21216 Certificate II in Rural Operations
- AHC21616 Certificate II in Landscaping
- AHC30116 Certificate III in Agriculture
- AHC30216 Certificate III in Agriculture (Dairy Production)
- AHC30316 Certificate III in Horse Breeding
- AHC30416 Certificate III in Pork Production
- AHC30516 Certificate III in Poultry Production
- AHC30616 Certificate III in Production Horticulture
- AHC30716 Certificate III in Horticulture
- AHC30816 Certificate III in Arboriculture
- AHC30916 Certificate III in Landscape Construction
- AHC31016 Certificate III in Parks and Gardens
- AHC31116 Certificate III in Production Nursery
- AHC31216 Certificate III in Retail Nursery
- AHC31316 Certificate III Turf Management
- AHC31416 Certificate III in Conservation and Land Management
- AHC31516 Certificate III in Indigenous Land Management

- AHC31616 Certificate III in Lands, Parks and Wildlife
- AHC31716 Certificate III in Natural Area Restoration
- AHC31816 Certificate III in Vertebrate Pest Management
- AHC31916 Certificate III in Weed Management
- AHC32016 Certificate III in Beekeeping
- AHC32216 Certificate III in Commercial Composting
- AHC32316 Certificate in Conservation Earthworks
- AHC32416 Certificate III in Irrigation
- AHC32616 Certificate III in Rural Machinery Operations
- AHC32716 Certificate III in Rural Merchandising
- AHC32816 Certificate III in Rural Operations
- AHC40116 Certificate IV in Agriculture
- AHC40316 Certificate IV in Production Horticulture
- AHC40416 Certificate IV in Horticulture
- AHC40516 Certificate IV in Parks and Gardens
- AHC40616 Certificate IV in Production Nursery
- AHC40716 Certificate IV in Retail Nursery
- AHC40816 Certificate IV in Sports Turf Management
- AHC40916 Certificate IV in Conservation and Land Management
- AHC41016 Certificate IV in Agribusiness
- AHC41116 Certificate IV in Irrigation

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 2 units of competency.

Unit Code	Unit Title
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals

Target Group

Individuals responsible for applying agricultural chemicals.

Suggested words for Statement of Attainment

These competencies meet State / Territory licensing requirements for the application of agricultural chemicals.

AHCSS00028 Basic Introduction to Beekeeping Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit toward the Certificate III in Beekeeping.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 6 units of competency.

Unit Code	Unit Title
AHCBEK202	Use a bee smoker
AHCBEK203	Open and reassemble a beehive
AHCBEK204	Construct and repair beehives
AHCBEK302	Manipulate honey bee brood
AHCBEK304	Remove a honey crop from a hive
AHCBEK306	Manage pests and disease within a honey bee colony

Target Group

Entry level or unqualified workers in the beekeeping industry and hobbyist beekeepers.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for the basic maintenance and monitoring of beehives.

AHCSS00029 Cotton Industry Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC20116 Certificate II in Agriculture.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 7 units of competency.

Unit Code	Unit Title
AHCBAC202	Assist agricultural crop maintenance
AHCMOM202	Operate tractors
AHCMOM304	Operate machinery and equipment
AHCWHS201	Participate in work health and safety processes
AHCWRK202	Observe environmental work practices
AHCWRK204	Work effectively in the industry
HLTAID002	Provide basic emergency life support

Target Group

Those working as farm hands in the cotton production industry.

Suggested words for Statement of Attainment

These competencies meet the minimum industry requirements for cotton industry work.

AHCSS00030 Farm Business Management Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release. Not equivalent to AHCSS00025 in AHC10.

Description

Pathways Information

These units provide credit towards the following Certificates:

- AHC40116 Certificate IV in Agriculture
- AHC41016 Certificate IV in Agribusiness
- AHC50116 Diploma of Agriculture
- AHC51416 Diploma of Agribusiness Management

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCBUS506	Develop and review a business plan
AHCBUS507	Monitor and review business performance
AHCBUS509	Develop and implement business structures and relationships
BSBR501	Manage risk

Target Group

Farmers and farm business managers with responsibility for farm business planning and management, including risk management.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for those responsible for farm business planning and management, including risk management.

AHCSS00031 Gravity Fed Irrigation Operator Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release. Not equivalent to AHCSS0004

Description

Pathways Information

These units provide credit towards a Certificate III in Irrigation.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 6 units of competency.

Unit Code	Unit Title
AHCIRG333	Maintain pressurised irrigation systems
AHCIRG303	Measure irrigation delivery system performance
AHCIRG334	Operate and maintain gravity fed irrigation systems
AHCIRG306	Troubleshoot irrigation systems
AHCSOL401	Sample soils and interpret results
AHCWRK405	Implement and monitor environmentally sustainable work practices

Target Group

Individuals who are working with gravity fed systems as irrigation operators.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for Irrigation Australia Ltd certified gravity fed irrigation operator.

AHCSS00032 Identify Plants for Indigenous Land Management Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC31516 Certificate III in Indigenous Land Management.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 3 units of competency.

Unit Code	Unit Title
AHCILM302	Provide appropriate information on cultural knowledge
AHCPCM201	Recognise plants
AHCPCM303	Identify plant specimens

Target Group

Workers in a range of industries who are working on Country or with Indigenous Communities.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for an introduction to recognising and working with plants that are significant to Indigenous Communities.

AHCSS00033 Irrigation Agronomist Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards the Diploma of Irrigation Management.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 7 units of competency.

Unit Code	Unit Title
AHCIRG402	Determine hydraulic parameters for an irrigation system
AHCIRG404	Implement an irrigation-related environmental protection program
AHCIRG408	Schedule irrigations
AHCIRG501	Audit irrigation systems
AHCIRG504	Develop an irrigation and drainage management plan
AHCSOL402	Develop a soil use map for a property
AHCWRK509	Provide specialist advice to clients

Target Group

Individuals who are working as irrigation agronomists.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for Irrigation Australia Ltd certified irrigation agronomist.

AHCSS00034 Irrigation Contractor Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release. Not equivalent to AHCSS00006 in AHC10.

Description

Pathways Information

These units provide credit towards the Certificate IV in Irrigation.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 3 units of competency.

Unit Code	Unit Title
AHCIRG431	Supervise irrigation system installation
AHCIRG402	Determine hydraulic parameters for an irrigation system
AHCWRK405	Implement and monitor environmentally sustainable work practices

Target Group

Individuals who are working as irrigation installation contractors.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for Irrigation Australia Ltd certified irrigation contractor.

AHCSS00035 Irrigation Installer Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release. Not equivalent to AHCSS00007 in AHC10.

Description

Pathways Information

These units provide credit towards the Certificate III in Irrigation.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 6 units of competency.

Unit Code	Unit Title
AHCIRG331	Install pressurised irrigation systems
AHCIRG303	Measure irrigation delivery system performance
AHCIRG306	Troubleshoot irrigation systems
AHCSOL401	Sample soils and interpret results
AHCWRK405	Implement and monitor environmentally sustainable work practices
CUAACD303	Produce technical drawings

Target Group

Individuals who are working as irrigation installers.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for Irrigation Australia Ltd certified irrigation installer.

AHCSS00036 Irrigation Manager Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards the Certificate IV in Irrigation.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCIRG402	Determine hydraulic parameters for an irrigation system
AHCIRG404	Implement an irrigation-related environmental protection program
AHCIRG408	Schedule irrigations
AHCSOL402	Develop a soil use map for a property

Target Group

Individuals who are working as irrigation managers.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for Irrigation Australia Ltd certified irrigation manager.

AHCSS00037 Irrigation Retailer Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards the Certificate III in Irrigation.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCIRG402	Determine hydraulic parameters for an irrigation system
AHCWRK208	Provide information on products and services
SIRXSLS001	Sell to the retail customer
SIRXPDK001	Advise on products and services

Target Group

Individuals who are working as irrigation products and services retailers.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for Irrigation Australia Ltd certified irrigation retailer.

AHCSS00038 Landscape Business Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards a Certificate IV in Landscape.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
BSBSMB405	Monitor and manage small business operations
AHCBUS404	Operate within a budget framework
BSBSMB404	Undertake small business planning
TLIR4002	Source goods/services and evaluate contractors

Target Group

Sole traders or a small business providing services as professional landscape contractors.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for those involved in establishing a sole trading/small business as a professional landscape contractor.

AHCSS00039 Landscape Design Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards a Diploma of Landscape Design.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 2 units of competency.

Unit Code	Unit Title
AHCDES501	Design sustainable landscapes
AHCDES502	Prepare a landscape project design

Target Group

Individuals or businesses undertaking commercial design landscape work.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for those involved in commercial landscape design work.

AHCSS00040 Landscape Plant Management Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards a Certificate IV in Landscape or Diploma of Horticulture.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCPCM401	Recommend plants and cultural practices
AHCPGD402	Plan a plant establishment program
AHCPGD501	Manage plant cultural practices
AHCPCM501	Diagnose plant health problems

Target Group

Sole traders or businesses involved in the landscape maintenance industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for those involved in landscape maintenance industry.

AHCSS00041 Landscape Professional Practice Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards a Diploma of Landscape Design.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 3 units of competency.

Unit Code	Unit Title
AHCBUS504	Prepare estimates, quotes and tenders
AHCWRK507	Implement professional practice
AHCLSC502	Manage landscape projects

Target Group

Sole traders or businesses involved in tendering and managing landscape projects.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for those involved in tendering and managing landscape projects.

AHCSS00042 Organic Crop Management Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC41616 Certificate IV in Organic Farming and AHC51816 Diploma of Organic Farming.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCORG403	Manage organic soil improvement
AHCBAC505	Plan and manage long-term weed, pest or disease control in crops
AHCBAC408	Manage agricultural crop production
AHCAGB501	Develop climate risk management strategies

Target Group

Individuals responsible for planning, implementing and managing organic crop production.

Suggested words for Statement of Attainment

These competencies meet industry requirements for managing organic crop production.

AHCSS00043 Vertebrate Pest Management Planning Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards:

- Certificate III in Pest Management
- Certificate IV in Pest Management

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 5 units of competency.

Unit Code	Unit Title
BSBPMG418	Apply project stakeholder engagement techniques
AHCPMG413	Define the pest problem
AHCPMG412	Develop a pest management plan
AHCPMG409	Implement a pest management plan
AHCPMG306	Determine pest control techniques

Target Group

- Authorised Control Officers in NSW and the ACT

- Agency biosecurity officers
- Local government officers
- Land owners
- Land managers

Suggested words for Statement of Attainment

These competencies meet the industry standards for applying a strategic approach to integrated vertebrate pest management, incorporating the principles of pest management.

AHCSS00044 Organic Horticulture Management Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC41616 Certificate IV in Organic Farming and AHC51816 Diploma of Organic Farming.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 5 units of competency.

Unit Code	Unit Title
AHCAGB501	Develop climate risk management strategies
AHCORG403	Manage organic soil improvement
AHCPHT402	Develop a crop regulation program
AHCPHT404	Implement and monitor a horticultural crop harvesting program
AHCPMG410	Implement the pest monitoring and evaluation plan

Target Group

Individuals responsible for planning, implementing organic horticultural production.

Suggested words for Statement of Attainment

These competencies meet the minimum industry requirements for managing organic horticultural production.

AHCSS00045 Spray Operator Skill Set

Modification History

Release	TP Version	Comment
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards Certificate II in Conservation and Land Management.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 5 units of competency.

Unit Code	Unit Title
AHCPMG203	Work effectively in a pest management environment
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders
AHCCHM303	Prepare and apply chemicals
AHCCHM304	Transport and store chemicals

Target Group

Individuals who plan and prepare for a specific weed management program.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for those who work with team members to carry out a specific weed management program.

AHCSS00046 Organic Livestock Management Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC41616 Certificate IV in Organic Farming and AHC51816 Diploma of Organic Farming.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCORG402	Manage organic livestock production
AHCORG403	Manage organic soil improvement
AHCLSK505	Develop production plans for livestock
AHCAGB501	Develop climate risk management strategies

Target Group

Individuals responsible for managing organic livestock production systems.

Suggested words for Statement of Attainment

These competencies meet industry requirements for managing organic livestock production systems.

AHCSS00047 Report on Aboriginal Cultural Sites Skill Set

Modification History

Release	TP Version	Comment
Version 1	1.0	Initial release

Description

Pathways Information

These units provide credit towards Diploma of Conservation and Land Management.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 5 units of competency.

Unit Code	Unit Title
AHCASW307	Support the documentation of Aboriginal cultural landscapes* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW309	Interpret Aboriginal cultural landscape* <i>AHCASW302 Relate Aboriginal culture to sites work*</i> <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW501	Survey and report on Aboriginal cultural sites* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCILM508	Propose a negotiated outcome for a given area of Country
LGALAND504A	Undertake effective consultation with Indigenous people on matters of cultural heritage

Target Group

Experienced Aboriginal sites workers who are managers or supervisors with responsibility for writing sites survey reports.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for Aboriginal sites survey reporting.

AHCSS00048 Permaculture Demonstrator Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards a Certificate III in Permaculture.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCPER301	Research and communicate information on permaculture principles and practices
AHCPER303	Maintain integrated plant and animal systems
AHCPER316	Select plant and animal species in a permaculture system
AHCPER321	Demonstrate permaculture practices to small groups of learners

Target Group

School teachers and permaculture demonstrators.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for those providing practical instruction to small groups of learners.

AHCSS00049 Pig Health Supervisor Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards the following Certificates:

- AHC30416 Certificate III in Pork Production
- AHC40116 Certificate IV in Agriculture

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 6 units of competency.

Unit Code	Unit Title
AHCLSK304	Carry out post-mortem examination of livestock
AHCLSK307	Euthanase Livestock
AHCLSK404	Implement and monitor animal welfare programs
AHCLSK409	Supervise animal health programs
AHCCHM304	Transport and store chemicals
AHCNAR302	Collect and preserve biological samples

Target Group

Individuals who are working as pig health supervisors in the pork production industry.

Suggested words for Statement of Attainment

These competencies meet the industry welfare and quality assurance requirements for stockperson supervisors working in the pork industry.

AHCSS00050 Pork Industry Euthanasia Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards the following Certificates:

- AHC30116 Certificate III in Agriculture
- AHC30416 Certificate III in Pork Production

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 2 units of competency.

Unit Code	Unit Title
AHCLSK307	Euthanase livestock
AHCLSK331	Comply with industry animal welfare requirements

Target Group

Individuals who are working as animal attendants in the pork production industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for stockpersons working in the pork industry.

AHCSS00051 Pork Industry Outdoor Pig Production Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards the following Certificates:

- AHC30116 Certificate III in Agriculture
- AHC30416 Certificate III in Pork Production

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCPRK205	Care for health and welfare of outdoor pigs
AHCPRK206	Conduct outdoor pig operations
AHCPRK306	Monitor and maintain outdoor pig production
AHCPRK402	Maintain outdoor pig production environment

Target Group

Individuals who are working as animal attendants in the pork production industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for stockpersons working in the outdoor pork production industry.

AHCSS00052 Pork Industry Stockperson Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards the following Certificates:

- AHC30116 Certificate III in Agriculture
- AHC30416 Certificate III in Pork Production

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 7 units of competency.

Unit Code	Unit Title
AHCPRK201	Care for health and welfare of pigs
AHCPRK203	Move and handle pigs
AHCWRK206	Observe enterprise quality assurance procedures
AHCWHS301	Contribute to work health and safety processes
AHCLSK301	Administer medication to livestock
AHCLSK309	Implement animal health control programs
AHCLSK331	Comply with industry animal welfare requirements

Target Group

Individuals who are working as animal attendants in the pork production industry.

Suggested words for Statement of Attainment

These competencies meet the industry welfare and quality assurance requirements for stockpersons working in the pork industry.

AHCSS00053 Poultry Egg Industry Pullet Rearing Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC30516 Certificate III in Poultry Production.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 6 units of competency.

Unit Code	Unit Title
AHCPLY206	Catch and load poultry
AHCPLY302	Brood poultry
AHCPLY306	Clean, disinfect, or fumigate intensive production sheds
AHCPLY307	Implement, monitor, and review biosecurity measures in poultry production
AHCLSK310	Implement feeding plans for intensive production
AHCLSK313	Monitor livestock production growing environments

Target Group

Individuals who are working as poultry stockpersons rearing pullets in the poultry egg industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for poultry egg industry pullet rearing.

AHCSS00054 Poultry Egg Industry Stockpersons Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC30516 Certificate III in Poultry Production.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 9 units of competency.

Unit Code	Unit Title
AHCPLY307	Implement and monitor biosecurity measures in poultry production
AHCLSK301	Administer medication to livestock
AHCLSK307	Euthanase livestock
AHCLSK331	Comply with industry animal welfare requirements
AHCWHS301	Contribute to work health and safety processes
AHCWRK204	Work effectively in the industry
AHCWRK205	Participate in workplace communications
AHCWRK306	Comply with industry quality assurance requirements

FDFFS1001A	Follow work procedures to maintain food safety
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Target Group

Individuals who are working as poultry stockpersons in the poultry egg industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for poultry egg industry stockpersons.

AHCSS00055 Poultry Health Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC30516 Certificate III in Poultry Production.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 6 units of competency.

Unit Code	Unit Title
AHCLSK301	Administer medication to livestock
AHCLSK304	Carry out post-mortem examination of livestock
AHCLSK307	Euthanase livestock
AHCLSK309	Implement animal health control programs
AHCLSK331	Comply with industry animal welfare requirements
AHCPLY307	Implement and monitor biosecurity measures in poultry production

Target Group

Individuals who are working as poultry hands in the poultry industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for poultry health.

AHCSS00056 Poultry Husbandry Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC30516 Certificate III in Poultry Production.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 5 units of competency.

Unit Code	Unit Title
AHCPLY307	Implement, monitor, and review biosecurity measures in poultry production
AHCLSK306	Coordinate and monitor production performance
AHCLSK310	Implement feeding plans for intensive production
AHCLSK313	Monitor livestock production growing environments
AHCLSK331	Comply with industry animal welfare requirements

Target Group

Individuals who are working as poultry hands in the poultry industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for poultry husbandry.

AHCSS00057 Poultry Industry Beak Tipping Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC30516 Certificate III in Poultry Production.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 2 units of competency.

Unit Code	Unit Title
AHCLSK307	Euthanase livestock
AHCPLY305	Beak tip poultry* <i>AHCLSK307 Euthanase livestock</i>

Target Group

Individuals who are working as poultry hands in the poultry industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for poultry industry beak tipping.

AHCSS00058 Poultry Industry Egg Collection and Packing on Farm Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC30516 Certificate III in Poultry Production.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCBIO202	Follow site quarantine procedures
AHCPLY204	Collect and pack eggs for human consumption
AHCPMG308	Implement pest management strategies
FDFFS1001A	Follow work procedures to maintain food safety

Target Group

Individuals who are working as poultry hands in the poultry industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for poultry industry egg collection and packing on farms.

AHCSS00059 Poultry Industry Egg Grading and Packing at Grading Floor Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC30516 Certificate III in Poultry Production.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCBIO202	Follow site quarantine procedures
AHCPLY205	Grade and pack eggs for human consumption
AHCPMG308	Implement pest management strategies
FDFFS1001A	Follow work procedures to maintain food safety

Target Group

Individuals who are working as poultry hands in the poultry industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for poultry industry egg grading and packing at grading floor.

AHCSS00060 Poultry Meat Industry Stockpersons Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC30516 Certificate III in Poultry Production.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 10 units of competency.

Unit Code	Unit Title
AHCLSK304	Carry out post-mortem examination of livestock
AHCLSK307	Euthanase livestock
AHCLSK309	Implement animal health control programs
AHCLSK313	Monitor livestock production growing environments
AHCLSK331	Comply with industry animal welfare requirements
AHCPLY203	Set up shed for placement of day-old chicks
AHCPLY302	Brood poultry
AHCPLY307	Implement, monitor, and review biosecurity measures in poultry production

AHCWHS301	Contribute to work health and safety processes
AHCWRK306	Comply with industry quality assurance requirements

Target Group

Individuals who are working as poultry stockpersons in the poultry industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for poultry meat industry stockpersons.

AHCSS00061 Prepare For and Manage Organic Farm Certification Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards AHC41616 Certificate IV in Organic Farming and AHC51815 Diploma of Organic Farming.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 3 units of competency.

Unit Code	Unit Title
AHCORG406	Oversee compliance with an organic certification scheme
AHCORG501	Develop an organic management plan
AHCORG502	Prepare the enterprise for organic certification

Target Group

Individuals responsible for preparing enterprises for organic farm certification.

Suggested words for Statement of Attainment

These competencies meet industry requirements to prepare enterprises for organic farm certification.

AHCSS00062 Pressurised Irrigation System Operator Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release. Not equivalent to AHCSS00011.

Description

Pathways Information

These units provide credit towards the Certificate III in Irrigation.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 6 units of competency.

Unit Code	Unit Title
AHCIRG333	Maintain pressurised irrigation systems
AHCIRG303	Measure irrigation delivery system performance
AHCIRG332	Operate pressurised irrigation systems
AHCIRG306	Troubleshoot irrigation systems
AHCSOL401	Sample soils and interpret results
AHCWRK405	Implement and monitor environmentally sustainable work practices

Target Group

Individuals who are working with pressurised systems as irrigation operators.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for Irrigation Australia Ltd certified pressurised irrigation operator.

AHCSS00063 Production Horticulture Administration Officer Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards a Certificate III in Production Horticulture.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
BSBFIA302	Process payroll
BSBITU304	Produce spreadsheets
BSBWHS302	Apply knowledge of WHS legislation in the workplace
SIRRINV001	Receive and handle retail stock

Target Group

Individuals working as administration officers in the production horticulture sector

Suggested words for Statement of Attainment

These competencies meet the industry requirements for administration officers working in the production horticulture sector.

AHCSS00064 Production Horticulture Administration Supervisor Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards a Certificate IV in Production Horticulture.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
BSBADM409	Coordinate business resources
BSBFIA302	Process payroll
BSBSMB401	Establish legal and risk management requirements of small business
BSBSMB407	Manage a small team

Target Group

Supervisors of administration officers working in the production horticulture sector.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for supervisors of administration officers working in the production horticulture sector.

AHCSS00065 Production Horticulture Machinery Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards a Certificate III in Production Horticulture.

Licensing/Regulatory Information

Check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCMOM302	Perform machinery maintenance
AHCMOM304	Operate machinery and equipment
AHCWHS301	Contribute to work health and safety processes
TLILIC2001	Licence to operate a forklift truck

Target Group

Machinery operators in the production horticulture industry.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for machinery operators working in the production horticulture industry.

AHCSS00066 Production Horticulture Manager Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards a Diploma in Production Horticulture.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

AHCBUS501	Manage staff
AHCBUS503	Negotiate and monitor contracts
AHCWHS501	Manage work health and safety processes
BSBSMB406	Manage small business finances

Target Group

Managers of production horticulture workers.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for managers working in the production horticulture industry.

AHCSS00067 Production Horticulture Supervisor Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards a Certificate IV in Production Horticulture.

Licensing/Regulatory Information

Check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCWHS401	Maintain work health and safety processes
AHCWRK401	Implement and monitor quality assurance procedures
AHCWRK403	Supervise work routines and staff performance
TLILIC2001	Licence to operate a forklift truck

Target Group

Supervisors of production horticulture workers.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for supervisors working in the production horticulture industry.

AHCSS00068 Production Horticulture Technology Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards a Certificate III in Production Horticulture.

Licensing/Regulatory Information

Check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCBUS301	Use hand held e-business tools
AHCMOM305	Operate specialised machinery and equipment
AHCMOM311	Operate precision control technology
BSBWOR204	Use business technology

Target Group

Those who use technology in a production horticulture workplace.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for using technology in the production horticulture industry.

AHCSS00069 Recognise Aboriginal Cultural Sites Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards Certificate III in Aboriginal Sites Work.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 4 units of competency.

Unit Code	Unit Title
AHCASW302	Relate Aboriginal culture to sites work* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCASW303	Identify and record Aboriginal-sites, artefacts and cultural landscapes* <i>AHCILM306 Follow Aboriginal cultural protocols</i>
AHCILM306	Follow Aboriginal cultural protocols
BSBWHS302	Apply knowledge of WHS legislation in the workplace

Target Group

Aboriginal-sites workers responsible for sites work activity under supervision.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for introductory Aboriginal-sites work.

AHCSS00070 Recognise Native and Feral Fauna Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards Certificate III in Conservation and Land Management.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 3 units of competency.

Unit Code	Unit Title
AHCWHS301	Contribute to workplace health and safety processes
AHCWRK303	Respond to emergencies
AHCFAU201	Recognise fauna

Target Group

Workers working in bushland who may come into contact with native fauna.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for identifying and responding to encounters with native and feral fauna.

AHCSS00071 Recognise Native Fauna in Indigenous Land Management Skill Set

Modification History

Release	TP Version	Comments
1	1.0	Initial release

Description

Pathways Information

These units provide credit towards Certificate III in Indigenous Land Management.

Licensing/Regulatory Information

Not applicable.

Skill Set Requirements

Complete 3 units of competency.

Unit Code	Unit Title
AHCILM302	Provide appropriate information on cultural knowledge
AHCFAU201	Recognise fauna
LGAREGS305A	Undertake animal or reptile control duties

Target Group

Workers in a range of industries working on Country or with Indigenous Communities.

Suggested words for Statement of Attainment

These competencies meet the industry requirements for working on Country around fauna that is significant to Indigenous Communities.

