Assessment Requirements for MEM234002 Integrate engineering technologies

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM234002A Integrate engineering technologies.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- determining the scope and parameters of the integration task
- communicating and negotiating with client and stakeholders
- generating solutions in response to the brief, including the technical requirements of an implementation plan, using systems thinking, innovation and creativity
- applying design standards, performance analysis, modelling and simulation software
- validating software
- evaluating solutions for feasibility against brief criteria on at least two occasions
- developing and optimising the chosen solution and technical implementation plan and schedule on at least two occasions
- preparing proposals on at least two occasions, including the implementation plan, resource requirements, documents, specifications, graphics and instructions
- monitoring and supporting implementation
- commissioning the project or operation.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- integration tasks and parameters
- design, implementation, commissioning and troubleshooting processes
- stakeholders in the integration task
- technology requirements for integration task
- holistic engineering principles including systems thinking, design, research and investigation methods
- modelling and calculation techniques
- current options and trends in design, performance analysis, and modelling and simulation software
- software validation techniques

- design and implementation criteria
- critical activities and resources as input to the planning process
- planning and scheduling techniques
- requirements for sign-off
- documentation, drawings, specifications and instructions required
- sustainability considerations
- WHS and regulatory requirements, codes of practice, standards and registration requirements.

Assessment Conditions

- Assessors must:
  - have vocational competency in integrating engineering technologies at least to the level being assessed with relevant industry knowledge and experience
  - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015 or its replacement* and comply with the *National Vocational Education and Training Regulator Act 2011,* its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
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Links

Companion Volume Implementation Guides are available on VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2