



Australian Government

Assessment Requirements for MEM234038

Apply systems engineering procedures to engineering design project management

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM234038A Apply systems engineering procedures to engineering design project management.

Performance Evidence

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

- setting up and managing procedures for systems analysis and control
- setting up and managing a systems engineering team
- developing and implementing procedures for identification of systems engineering process inputs
- managing and recording the outcomes of requirement and functional analysis and allocation and applying the requirements loop process
- developing and documenting the functional and allocated baseline criteria on at least two occasions
- managing the development of the system specification and preliminary design and applying the design loop process
- managing the detail design process and using outputs to develop a technical data package
- developing and documenting the product baseline
- maintaining oversight of the production and delivery phase criteria on at least two occasions
- providing process outputs for the establishment of configuration management (CM) procedures or integrated logistic support (ILS) plans
- determining requirements for life cycle management where CM or ILS is not required and setting up and documenting the life cycle management system.

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:

- systems engineering process and management procedures
- how to set up and manage the activities of a systems engineering design team
- development of specifications and standards

- identification of applicable published specifications and standards
- how to set up and manage a systems analysis and control database
- how to use process outputs to set up CM and ILS systems for through-life management
- how to develop and document an applicable life cycle management system where CM or ILS is not prescribed or is inappropriate
- ethical considerations in systems engineering.

Assessment Conditions

- Assessors must:
 - have vocational competency in applying systems engineering procedures to engineering design project management 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 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 found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>