



**Australian Government**

**Assessment Requirements for MEM234039  
Provide technical support for prototyping  
in large engineering and fabrication  
projects**

**Release: 1**

# Assessment Requirements for MEM234039 Provide technical support for prototyping in large engineering and fabrication projects

## Modification History

Release 1. New unit.

## Performance Evidence

There must be evidence the candidate has demonstrated the ability to:

- identify typical commands and features of ERP systems
- interrogate design information from CAD/CAM and other systems
- interpret design information according to own technical specialisation (mechanical, electrical, electronic etc.) and communicate relevant design information to other prototyping employees including:
  - assisting employees with correct engineering and/or fabrication project nomenclature
  - classifying tasks and components and components to align with design and schedule nomenclature
- identify suppliers for prototyping materials and services including:
  - matching each supplier to design specifications
  - identifying delivery date and time in prototyping master schedule
  - identifying supplier specification or delivery non-conformances and communicating non-conformance according to standard operating procedures
- analyse a site and/or work area and determine any constraints to the prototyping process
- analyse prescribed work tasks or processes and calculate required machine and employee hours
- identify nonconformances in standard materials and processes used in engineering and/or fabrication and determine the root cause.

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

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- work characteristics for large engineering and/or fabrication projects including:
  - the concept of work in place i.e. work is conducted around the object or artifact being fabricated rather than being transferred along a production line
  - stages and transfers being few and large
  - design being more iterative and able to occur along the value chain

- prototyping covering more than design verification
- the difference between single fabrication and modular construction methods for large fabrication projects
- for modular construction, the relationship of each module stage to the next, including the design, prototyping and final assembly and commissioning stages
- the role as the interpreter between design information and skills and work methods used by major trades and the trade requirement for detailed drawings
- ERP systems and their use
- project scheduling processes and concepts including master schedules vs. sub-schedules, charting including Gantt charts, and schedule variations.
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## Assessment Conditions

- Assessors must:
  - have vocational competency in technical support in large engineering and fabrication prototyping projects 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.
- There must be suitable access to an operating plant or equipment that allows for appropriate and realistic simulation and documentation including relevant workplace procedures, industry codes and standards.
- 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>