



**Australian Government**

# **MEM10119 Certificate I in Engineering**

**Release 1**

# MEM10119 Certificate I in Engineering

## Modification History

Release 1. Supersedes but is not equivalent to MEM10105 Certificate I in Engineering

## Qualification Description

This qualification defines entry-level skills and knowledge to assist workers entering employment as engineering/manufacturing employees within the metal, engineering, manufacturing and associated industries.

No licensing, legislative or certification requirements apply to this qualification at the time of publication. However, in some jurisdictions units in this qualification may require a license. Licensing information is included in the relevant units of competence.

No other descriptor can be used.

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To be awarded the MEM10119 Certificate I in Engineering units of competency to a value of 16 points must be achieved, chosen as outlined below:

- core unit of competency listed below (totalling 2 points) and
- elective units of competency to a value of 14 points from Group A.

Appropriate elective units to the value of 4 points may be chosen from this Training Package, other endorsed Training Packages and accredited courses where those units are available for inclusion at Certificate I. Only select units that would be suitable for occupational outcomes in an engineering/manufacturing environment.

Registered Training Organisations (RTOs) must seek a determination from the industry parties in respect of the allocation of points values for units of competency drawn from other Training Packages or accredited courses. Determination of points requests are to be submitted to the industry parties through Innovation and Business Skills Australia (IBSA) Manufacturing. Refer to the MEM Companion Volume Implementation Guide for information on determination of unit points values.

### Prerequisites

Points associated with prerequisites count towards the total. Units with prerequisite requirements are marked with an asterisk (refer to the individual units for details). All prerequisites are included in the units listed.

## Core units of competency

Unit code	Unit title	P	Pre req
MEM13015	Work safely and effectively in manufacturing and engineering	2	

## Elective units of competency

## Group A

Unit code	Unit title	P	Pre req
MEM03001	Perform manual production assembly	4	*
MEM03003	Perform sheet and plate assembly	4	*
MEM03004	Perform electronic/electrical assembly (production)	8	*
MEM04004	Prepare and mix sand for metal moulding	4	*
MEM04008	Fettle and trim metal castings/forgings	4	*
MEM05001	Perform manual soldering/desoldering - electrical/electronic components	4	*
MEM05003	Perform soft soldering	2	*
MEM05004	Perform routine oxy fuel gas welding	2	*
MEM05005	Carry out mechanical cutting	2	*
MEM05006	Perform brazing and/or silver soldering	2	*
MEM05007	Perform manual heating and thermal cutting	2	*
MEM05012	Perform routine manual metal arc welding	2	*
MEM05013	Perform manual production welding	2	*
MEM07001	Perform operational maintenance of machines/equipment	2	*
MEM07003	Perform routine machine setting	4	*
MEM07024	Operate and monitor machine and process	4	*
MEM07028	Operate computer controlled machines and processes	2	*

<b>Unit code</b>	<b>Unit title</b>	<b>P</b>	<b>Pre req</b>
MEM07029	Perform routine sharpening and maintenance of production tools and cutters	4	*
MEM07032	Use workshop machines for basic operations	2	*
MEM08002	Pre-treat work for subsequent surface coating	4	*
MEM08004	Finish work using wet, dry and vapour deposition methods	4	*
MEM08009	Make up solutions	2	*
MEM08010	Manually finish/polish materials	6	*
MEM08011	Prepare surfaces using solvents and/or mechanical means	2	*
MEM08014	Apply protective coatings (basic)	4	*
MEM11005	Pick and process order	4	*
MEM11006	Perform production packaging	2	*
MEM11008	Package materials (stores and warehouse)	2	*
MEM11011	Undertake manual handling	2	*
MEM11013	Undertake warehouse receipt process	4	*
MEM11016	Order materials	2	*
MEM12001	Use comparison and basic measuring devices	2	*
MEM12023	Perform engineering measurements	5	*
MEM12024	Perform computations	3	*
MEM13001	Perform emergency first aid	1	*
MEM13003	Work safely with industrial chemicals and materials	2	*
MEM15001	Perform basic statistical quality control	2	*
MEM15003	Use improvement processes in team activities	4	*
MEM16004	Perform internal/external customer service	2	*
MEM16005	Operate as a team member to conduct manufacturing, engineering or	2	*

<b>Unit code</b>	<b>Unit title</b>	<b>P</b>	<b>Pre req</b>
	related activities		
MEM16006	Organise and communicate information	2	*
MEM16008	Interact with computing technology	2	*
MEM18001	Use hand tools	2	*
MEM18002	Use power tools/hand held operations	2	*
MEM18013	Perform gland packing	2	*
MEM19002	Prepare jewellery illustrations	4	*
MEM19003	Handle gem materials	2	*
MEM19006	Replace watch batteries	1	*
MEM19010	Produce rubber moulds for lost wax casting process	2	*
MEM19011	Perform wax injection of moulds for lost wax casting process	2	*
MEM19014	Perform hand engraving	4	*
MEM20001	Produce keys	4	*
MEM20002	Assemble and test lock mechanisms	6	*
MEM20003	Install and upgrade locks and hardware	4	*
MEM27029	Maintain wheels and tyres	2	*
MEM50002	Work safely on marine craft	1	*
MEM50003	Follow work procedures to maintain the marine environment	1	*
MEM50004	Maintain quality of environment by following marina codes	1	*
MEM50009	Safely operate a mechanically powered recreational boat	2	*
MSMENV272	Participate in environmentally sustainable work practices	3	

## Qualification Mapping Information

Release 1. Supersedes but is not equivalent to MEM10105 Certificate I in Engineering

### Links

Companion Volume implementation guides are found in VETNet -

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