



Australian Government

MEM10119 Certificate I in Engineering

Release 2

MEM10119 Certificate I in Engineering

Modification History

Release 2. Revised to include gemstone cutting and polishing units in elective banks. Supersedes and is equivalent to MEM10119 Certificate I in Engineering (Release 1).

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.

In some jurisdictions units in this qualification may require a license or relate to regulatory requirements. Licensing and regulatory information is included in the relevant units of competency.

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

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

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

- the core unit of competency listed below (totaling 2 points) and
- elective units of competency to a minimum value of fourteen (14) points.

Elective units to the value of four (4) points, that are relevant to work as an entry level employee in engineering, manufacturing and associated industries environment and do not duplicate skills and knowledge already available in units within this qualification, may be chosen from this Training Package, other endorsed Training Packages and accredited courses where those units are available for inclusion at Certificate I.

Registered Training Organisations (RTOs) must seek a determination from the industry parties in respect of the allocations of point 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 point values.

No other descriptor can be used.

Prerequisites

Prerequisite units count towards the total number of units. Units with prerequisite requirements are marked with an asterisk (refer to the individual units for details). All prerequisites are included in the qualification.

Core units of competency

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

Elective units of competency

Unit code	Unit title	P	Prereq
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	*

Unit code	Unit title	P	Prereq
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	*
MEM09002	Interpret technical drawing	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	*

Unit code	Unit title	P	Prereq
MEM16005	Operate as a team member to conduct manufacturing, engineering or related activities	2	*
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	*
MEM19057	Research the gemstone market and complete pre-cutting processes	3	*
MEM19058	Cut and polish solid gemstones	8	*
MEM19059	Complete pre-cutting processes for gemstone assemblies	3	*
MEM19060	Cut and polish a gemstone assembly	8	*
MEM19065	Obtain rough and polished gemstones	1	*
MEM20015	Produce hand cut keys	2	*
MEM20023	Assemble and test lock mechanisms	6	*
MEM20024	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	*

Unit code	Unit title	P	Prereq
MEM50004	Maintain quality of environment by following marina codes	1	*
MEM50009	Safely operate a mechanically powered recreational boat	2	*
MSMENV2 72	Participate in environmentally sustainable work practices	3	

Qualification Mapping Information

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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>